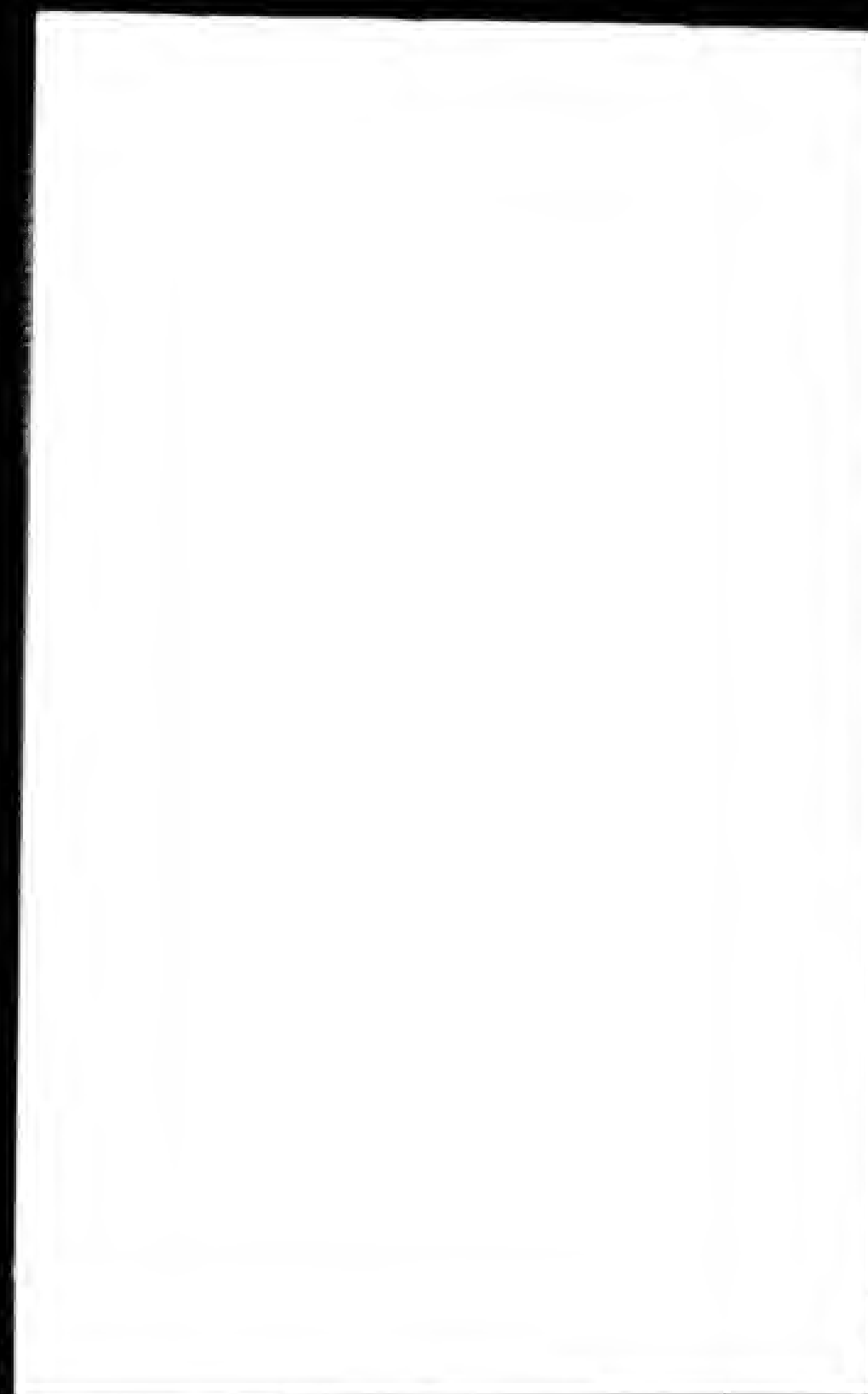


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SELF REPORTS OF PHYSICALLY HANDICAPPED

AND

NON-HANDICAPPED CHILDREN

by

Winifred Toole Kinn

Thesis submitted to the Faculty of the Graduate School  
of the University of Maryland in partial fulfillment  
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TABLE OF CONTENTS

Chapter	
ACKNOWLEDGEMENTS . . . . .	ii
TABLE OF CONTENTS . . . . .	iii
LIST OF TABLES . . . . .	vi
I. THE PROBLEM . . . . .	1
A. Introduction . . . . .	1
B. Statement of the Problem . . . . .	6
C. Definition of Terms . . . . .	8
D. Hypotheses of the Study . . . . .	12
E. Significance of the Study . . . . .	22
F. Delimitations of the Study . . . . .	24
G. Organization of the Dissertation . . . . .	25
II. RATIONALE -- THE SELF STRUCTURE . . . . .	27
A. Constructs Relating to the Role of the Self Concept in Behavior . . . . .	27
B. Summary . . . . .	89
III. APPLICATION OF THE RATIONALE TO THE VARIOUS CATEGORIES OF PHYSICAL HANDICAP . . . . .	94
A. Hearing Impairment . . . . .	97
B. Vision Impairment . . . . .	105
C. Locomotor Disabilities . . . . .	112
D. Chronic Disorders . . . . .	118
E. Summary . . . . .	124

IV.	REVIEW OF SELECTED RESEARCHES OF THE REPORTS OF SELF CONCEPTS OF CHILDREN . . . . .	127
	A. Studies of the Self Concepts of Children . . . . .	130
	B. Studies of the Adjustment of Handicapped Children. . . . .	142
	C. Studies Concerning Factors Related to the Self Concepts of Handicapped Children . . . . .	151
	D. Summary . . . . .	173
V.	THE RESEARCH DESIGN . . . . .	179
	A. Type of Research . . . . .	179
	B. Selection of the Sample . . . . .	179
	C. Selection of the Instruments . . . . .	186
	D. Collection of Data . . . . .	192
	E. Statistical Methods Used in the Analysis of Data . . . . .	197
	F. Basic Assumptions . . . . .	198
	G. Summary . . . . .	199
VI.	ANALYSIS OF DATA AND FINDINGS RELATIVE TO THE SELF REPORTS OF PHYSICALLY HANDICAPPED AND NON-HANDICAPPED CHILDREN. . . . .	200
	A. Collection and Analysis of Data . . . . .	200
	B. Findings Relative to the Comparisons of the Self Concept Reports . . . . .	203
	C. Results of Testing the Hypotheses . . . . .	216
	D. Discussion of the Results . . . . .	219
	E. Summary . . . . .	222
VII.	SELF REPORTS OF STUDENTS IN VARIOUS CATEGORIES OF HANDICAP . . . . .	224
	A. Collection and Analysis of Data . . . . .	224
	B. Findings Relating to Self Reports According to Handicap . . . . .	224

	C. Results of Testing the Hypotheses . . . . .	227
	D. Discussion of the Findings . . . . .	229
	E. Summary . . . . .	230
VIII.	FINDINGS RELATIVE TO SELF CONCEPT AND IDEAL SELF CONCEPT AMONG HANDICAPPED AND NON-HANDICAPPED STUDENTS . . . . .	231
	A. Collection and Analysis of Data . . . . .	231
	B. Findings Relating to Congruency . . . . .	231
	C. Results of Testing the Hypotheses . . . . .	235
	D. Discussion of Findings . . . . .	235
	E. Summary . . . . .	239
IX.	SUMMARY, CONCLUSIONS, AND IMPLICATIONS . . . . .	241
	A. Summary . . . . .	241
	B. Conclusions . . . . .	250
	C. Implications . . . . .	255
	BIBLIOGRAPHY . . . . .	300
	APPENDICES . . . . .	266

# LIST OF TABLES

Table	Page
1. Handicaps Represented in the Experimental Group . . . . .	182
2. Summary Statistics Regarding the Students in Each Group . . . . .	187
3. Reliability Coefficients and Related Data for the Mental Health Analysis, Elementary Grades, 4-8 . . . . .	190
4. Reliability Coefficients for the Mental Health Analysis Components . . . . .	191
5. Measures of Central Tendency, Variability, and Significant Differences for Two Major Categories and Total Scores for the Mental Health Analysis . . . . .	204
6. $\chi^2$ Values and Probabilities for Differences for Significant Items and Total Scores, "Freedom from Physical Defects," in Mental Health Analysis . . . . .	205
7. $\chi^2$ Values and Probabilities for Differences for Significant Items Relating to Physical Adequacy and Total Scores in the Q-Sort Self Report . . . . .	206
8. $\chi^2$ Values and Probabilities for Differences for Significant Items and Total Scores from the Mental Health Analysis Relating to Interpersonal Relations . . . . .	208
9. $\chi^2$ Values and Probabilities for Differences for Significant Items for Interpersonal Relations and Total Scores in the Q-Sort Self Report . . . . .	209
10. $\chi^2$ Values and Probabilities for Significant Items and Total Scores Relating to Interpersonal Skills from the Mental Health Analysis . . . . .	210
11. $\chi^2$ Values and Probabilities for Differences for Significant Items Relating to Capacities, Abilities, and Skills in the Q-Sort . . . . .	211

12. $\chi^2$ Values and Probabilities for Significant Differences for Items and Total Scores Relating to Adequate Outlook and Goals and Satisfying Work and Recreation from the Mental Health Analysis . . . . .	212
13. $\chi^2$ Values and Probabilities of Significant Differences for Items and Total Scores Relating to Satisfying Work and Recreation Pursuits from the Q-Sort . . . . .	213
14. $\chi^2$ and Probabilities of Significant Differences for Items and Total Scores Relating to Adjustment from the Mental Health Analysis . . . . .	215
15. Analysis of Variance of Grouped Mental Health Component Scores Testing Significant Differences Between the Self Reports According to Handicap . . . . .	225
16. Summary Statistics Relative to the Administration of the Q-Sort to Handicapped and Non-Handicapped Students . . . . .	233
17. Summary Statistics Relative to the Administration of the Q-Sort for Combined Groups of Handicapped Children and Control Subjects . . . . .	233

## CHAPTER I

### THE PROBLEM

#### Introduction

This study is directed toward: the characteristics and qualities which physically handicapped children in one school ascribe to themselves and the world. Educators are beginning to recognize the tremendous importance of the self concept to the behavior of the individual. In this frame of reference the concepts that the child holds of himself and his world become the very core around which are organized the unique perceptions of people, situations, and events that the individual accepts as real. Behavior stems from the meanings of events to the individual, and changes in behavior can occur only as the child is assisted to change his perceptions.

Although the school remains the most important agent of society for the transmission of those features of the cultural heritage which have been formalized into "school subjects," it assumes additional responsibility for "personal-social-civic" efficiency not adequately learned elsewhere. These learnings imply the attainment of physical and intellectual skills and ability to get along with oneself and others. Contrasted to education of the past, education for a complex and rapidly changing world must place greater emphasis on children. Therefore, those whose responsibility it is to guide the behavior of others toward improved living in the present and preparation for adequate adjustment in an unknown future are turning their attention to the study of human perception. As the individual perceives himself and his world so he will act.

A shift in educational emphasis and responsibility comes when automa-



tion and advanced technology are forcing tremendous changes in the outlook and activities of large numbers of people in our society. Students must be prepared for these current changes and those which will occur in a future not yet delineated. Havighurst states, "Today's children will make tomorrow's world."<sup>1</sup> How can we give children a good start on paths we have not trod? Alpenfels notes: "...the future is as unpredictable as it was once well known....We cannot teach skills for a future we cannot foretell."<sup>2</sup>

Educators cannot predict precisely the information and skills which the children of today will need as the adults of tomorrow, but they realize the continuing need for the "tools" -- reading, writing and arithmetic. Therefore, it can be assumed that the "school subjects" will continue to provide the foundation for the education of children. However, formal education cannot do the job alone. In addition, the schools must "teach" those attitudes that will prepare the child for effective participation in whatever situation he finds himself. The most significant of such attitudes are those the child holds toward himself. In this respect, Hopkins sees the emerging self-concept as an integral part of learning:

All learning has three relationships....which operate simultaneously. One is to the self, a second is to others in the immediate environment, and the third is to the larger world or universe of which the interacting individuals are members. What one believes or does toward others, and what one conceives as his place in the great universe are dependent upon what he is to himself. And what he accepts himself to

1

Robert J. Havighurst, "Today's Children in Tomorrow's World," Childhood Education, 37:8 (April, 1961), p. 356.

2

J. Ethel Alpenfels, "Children at Work, Foreward- Anthropologist's Viewpoint," Childhood Education, 37:8 (April, 1961), pp 364-365.

be is a function of the quality of his interaction from infancy to majority.<sup>1</sup>

Significant attitudes for a useful and satisfying life for the child of today and the adult of tomorrow reflect what the individual accepts himself to be: (1) a physical organism which is attractive and can do useful things, (2) a person who can participate effectively in an intimate group and as a citizen of the larger society, and (3) a person who is sufficiently free from anxieties to reach out for new experiences, to set realistic goals in the midst of change, and to gain satisfaction from work.

All parts of the body are required to appraise the environment, to adapt to change within and without the organism, and to participate in purposeful activities. Success in satisfying the basic needs and in controlling the body in order to use it effectively is enhanced by the effective operation of the sensory equipment, smooth coordination in posture and movement, sufficient energy, and attractive appearance as viewed by the individual.

Satisfying relations with others are important to the child. Much of the child's selfhood is created by the people around him and the environment which he has "absorbed." From these significant people, young children discover who they are and the nature of the attributes they possess. Appropriate social activities provide the individual with opportunities for learning in such significant areas as:

Participation with a wide variety of people in the home, school, and community

Adjustment in the peer group

1

L. Thomas Hopkins, The Emerging Self in School and Home, (New York: Harper and Brothers, 1954) p. 19.

Development of satisfying and appropriate heterosexual relationships

Attainment of gradual independence from parental authority and protection.

Such benefits may be denied the child who cannot accept himself for he may be unable to develop satisfying relationships with others.

From the child's interaction with the important people in his life, his internalization of selected aspects of the environment, and the ensuing concept of self come the knowledge that he can (cannot) do worthwhile things, has (has not) capacities and abilities, and can (cannot) develop skills needed to become the most useful contributor and the most effective citizen possible. The child has need to develop sound judgments about his successes and failures in order to direct his efforts intelligently. It is imperative that he learn to recognize his abilities and use them constructively, and at the same time, to correct his weaknesses or, when necessary, to accept them. These are significant tasks, because realistic aspirations are governed by an accurate estimate of assets and liabilities.

How the child relates to the world is closely associated with the attitudes he holds toward himself and those aspects of the environment which hold meaning and value to him. Therefore, the school has as one of its important functions the guidance of the pupil toward establishing realistic goals and wholesome values. To be realistic the goals should be sufficiently high to stimulate constructive growth, low enough to permit success with reasonable effort, and sufficiently worthy to be consistent with the common good. Wholesome values are particularly important for the developing individual at a time when scientific progress is bestowing upon Man tremendous powers to create and destroy. Survival tomorrow depends in great degree on the ethical standards of the youth of today.

If one is to live meaningfully, it is important that he develop a workable philosophy of life in order that he may have a sense of responsibility for himself and the group, be sufficiently free from anxiety to be "open" to new experience, absorb success and withstand failure, and be guided by goals that are realistic for him. Fortunate is the individual who has developed sufficient stability to endure the strains of responsibility, defeat, and disappointment, and who is able to meet his obligations and approach his goals with initiative, resourcefulness, and imagination.

The ideas presented above relate to motivational forces generating the child's behavior and to areas of responsibility for the school. In the school it is often assumed that the child will change his behavior as a result of what he knows. However, a student can change his feelings, views, attitudes, and behavior more readily when he feels the support and approval of his teacher, meets with acceptance by his classmates, and perceives himself valued because he can do worthwhile things.

As a teacher attempts to channel the energies of the child, she must see the pupil's efforts in terms of what he is trying to accomplish. To do this she must gain insight into the self concepts of the student in order to relate new information and activities in a meaningful manner to his needs, interests, and goals. Each pupil brings to the classroom his unique background of experience and the meanings which he has derived from his past experiences. Therefore, the words and examples of the teacher are interpreted and acted upon within this frame of reference. "Success is achieved by the child when he tries to accomplish something that he feels worth doing at the same time that he does what the teacher wants him to do."<sup>1</sup>

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1

Robert Beck, Walter Cook, and Nolan Kearney, Curriculum in the Modern Elementary School, (Englewood Cliffs, New Jersey: Prentice Hall, 1960), p. 94.



To see the point of view of the child, to learn what feelings he holds about himself and his world are significant, for the individual acts in a situation as he views it from his unique position and in terms of the meanings that it holds for him. Bills states, "....when we see the world through the eyes of another person, his behavior begins to make 'sense' to us."<sup>1</sup>

From a knowledge of the growth and development of children this research has identified the following as significant clues to the self perceptions of the child:

The view he holds of himself as a physical organism

The feelings he has toward the significant people in his world

The capacities, abilities, and skills which he believes that he has for use

The objects, situations, and events which are meaningful and valuable to the individual

The ways in which he seeks to protect his self concept.

The teacher who studies the behavior of a student to determine the concept that the child holds of himself will be better able to read the world of this individual -- the ideas, objects, and people important to him; the situations which please or worry him; the channels into which he is directing his energy; the evidences of readiness for new experience.

#### Statement of the Problem

The ideas developed in the introductory material in this chapter relate in principle to the development and behavior of all children. However, all children do not have the same opportunities to use the resources of

<sup>1</sup>

Robert E. Bills, "About People and Teaching," Bulletin of Bureau of School Service, University of Kentucky, 28:2 (December, 1955), p. 1.

the environment for full self development. The child perceives himself and his world by means of the sensory data available to him through hearing, seeing, smelling, feeling, and muscular processes and in terms of the opportunities available to him for experience. The child with impaired hearing, poor vision, or arms and legs lacking in sensation or muscular control is denied the benefits of some of the stimuli or information available in the environment. Experiences are limited for the child who does not walk or who cannot see and is, therefore, not able to move freely through his environment. It would follow, then, that there would be significant differences between physically handicapped and non-handicapped children in their views of themselves as physical organisms, their opportunities to develop a variety of skills, and the people, objects, and events to which they attach meaning as a result of their life experiences.

The purpose of the present study is to investigate the self reports of a selected group of children in order to gain information necessary for the planning of a program designed to meet the needs and capacities of physically handicapped students in a school which is organized, administered, and programmed for most pupils within the same framework as are the schools for the non-handicapped children. The implication in this organization and programming is that generally the same situations and events hold meanings for the students in both groups, and the same personal and educational needs and basic goals prevail for the handicapped and the non-handicapped pupils. The literature reports investigations of the self concepts of non-handicapped subjects and a lesser number of studies of handicapped children in hospitals, clinics, and state institutions. Fewer studies of the self concepts of handicapped children in public schools have been reported. No studies have sampled the universe of handicapped children, and, therefore, generally the conclusions have applied only to

the groups studied. No study of the self reports of students with a variety of physical handicaps in the aforementioned school has been conducted. Therefore, this research has great significance to the staff and administrative and supervisory personnel who are responsible for understanding the behavior of these children and planning an effective educational program.

It is the purpose of this study to test a fundamental hypothesis: Physically handicapped students and physically non-handicapped pupils differ in the ways in which they view themselves and the world; they differ in the characteristics and qualities which they ascribe to themselves. In exploring the self reports of students with a wide variety of handicaps -- severe and moderate hearing impairment, visual disabilities, severe and moderate locomotor disabilities, and miscellaneous non-visible handicaps necessitating restriction in activity -- and a control group of matched physically non-handicapped students, several pencil-and-paper-instruments are used: (1) an analysis consisting of 200 questions designed to sample the student's reactions in 10 areas of behavior and to which the child responds yes or no and (2) a Q-sort.

In the process of testing the basic hypothesis, three aspects are explored:

Self reports of the physically handicapped children and a matched group of physically non-handicapped children

Self reports of students in various categories of physical handicap

Self concept and ideal self concept congruency among handicapped and non-handicapped students.

#### Definition of Terms

The following are definitions of terms pertinent to this study:

Self. The self includes those elements of the phenomenal (experiential) field which the individual perceives as within the control of self

or as part of himself -- physique and temperament, needs and levels of aspirations, skills and interests, fears and hopes, habits and knowledge. It includes also the meanings and evaluations one assigns to the kind of person he is and his place in the world. Self has been called the "core of behavior." Horney, as reported by Rasey, adds another dimension to the self study when she suggests that the "real" self or the central inner force is not yet differentiated but is a potential source of growth while the "actual" self is that which is revealed by behavior.<sup>1</sup>

In this paper the writer views the self as a composite of several meanings:

An evolving or emerging structure with elements of stability and resistance to change

A system of central meanings and a hierarchy of values which evolve from the experiences of the individual in his life space

A process governing behavior by which an individual organizes his world by valuing and seeking those aspects of his environment that move him toward self maintenance and self enhancement and by devaluing and ignoring or distorting that which is detracting from or threatening the unity of the self organization.

Self concept. One aspect of self, the self concept, includes the many descriptions which make up the picture that the individual carries of himself and of himself in relation to others. It includes all the perceptions that the individual has differentiated as descriptive of the self he calls "I" or "me." It has been called a shorthand description of a complex self, the symbol or generalization of the self.

Self concept is defined operationally in this study to include the unique perceptions and evaluations which the individual holds of the following:

<sup>1</sup>

Marie I. Rasey, "Toward the End," in The Self, ed. Clark E. Moustakes, (New York: Harper and Brothers Publishers, 1956), pp. 250, 253.



The physical organism

The significant people in his world and his relationship with them

The capacities, abilities, and skills he has for use

The objects, situations, and events which are meaningful and hold value for him

The situations which threaten the self picture and the adjustment techniques which he has selected for use.

Ideal self. The ideal self uses the descriptive components of the self concept but in the frame of reference of what the individual would like to become. Combs and Snygg note that, while the ideal self indicates what one might like to be, it is rare that such distant ends become a dynamic in motivating behavior which is more closely related to immediate goals. While the acceptance of self can be a constructive force, a platform from which one can move forward, and a frame of reference in which to interpret new events and directions, the goals of the ideal self may serve only to discourage the individual.<sup>1</sup>

In this study the ideal self is defined as the individual's perception of the kind of person he would like to be or should become.

Self report. The self report represents what the individual says he is as he describes himself to another person. It cannot be considered synonymous with the self concept for the nature of the self report depends on a number of factors:

Clarity of the subject's awareness depending in part on which self concepts are clearly focused and which are "immersed in ground"

Adequacy of the symbols available for expressing experiences

Social expectancy which may cause the child to try to hide his self concepts from others

Freedom from threat along with a feeling of personal adequacy

<sup>1</sup>

Arthur W. Combs and Donald Snygg, Individual Behavior, (New York: Harper and Brothers Publishers, 1959), pp. 361-362.

Change in the field organization which may take place as the subject attempts to turn attention to self.<sup>1</sup>

However, the self report is useful for, as behavior, it does provide clues to the perceptual organization and motivations of the individual. In this study the self reports of the subjects, the ways in which they describe themselves to others, will be collected from the pencil-and-paper instruments previously noted.

Physical handicap or disability. Numerous writers emphasize the social evaluation involved as an individual is judged to have a physical handicap. Meyerson writes of physical disability as a variation in physique upon which our society places negative value,<sup>2</sup> and he extends this idea to include the individual's self evaluation:

Which variations will be considered disabilities, impairments or handicaps is strictly relative to the expectations of the culture in which the person lives, the tasks that are required of him, and the meaning the person himself and others may assign to the variation.<sup>3</sup>

Other definitions emphasize the personal meaning of the "handicap" and the adjustment required. It has been stated that a person is handicapped only to the degree that he cannot cope with the problems which his condition presents, only to the degree that he cannot come to terms with "the demands of the outer and inner world."<sup>4</sup>

<sup>1</sup>

Ibid, p. 440.

<sup>2</sup>

Lee Meyerson, "Physical Disability as a Social-Psychological Problem," Journal of Social Issues, 4:4 (Fall, 1948), p. 4.

<sup>3</sup>

Lee Meyerson, "Somatopsychology of Physical Disability," in Exceptional Children and Youth, ed. by William M. Cruickshank, (Englewood Cliffs, New Jersey: Prentice-Hall, Inc., 1955), p. 9.

<sup>4</sup>

Board of Education of New York City, "Helping the Physically Limited Child," Curriculum Bulletin, 1952-1953, Number 7, (1953), p. 16.

In this study, the terms "handicap," "impairment," and "disability" are recognized as having an objective or medical aspect and are used interchangeably. Handicaps specific to this research are hearing impairment, vision impairment, locomotor disability, and chronic illness.

#### Hypotheses of the Study

As was noted earlier, the fundamental hypothesis tested in this study is stated as follows: Physically handicapped students and physically non-handicapped pupils differ in the ways in which they view themselves and the world; they differ in the characteristics and qualities which they ascribe to themselves. To facilitate the exploration of this hypothesis, eleven specific hypotheses organized under three sub-problems are to be investigated. In the material below each hypothesis is discussed briefly.

#### Self Reports of Physically Handicapped Children and Physically Non-handicapped Children

1. Physically handicapped students report themselves as significantly less adequate physically than do physically non-handicapped children. The body image evolves from the integration of a multitude of perceptions. Early in his life the individual comes to look on his body as do the significant people in his world. Kolb emphasizes the role of the parent in helping to determine how the child views his body:

The attitudes of parents impart an indelible impression on the child's concept of himself, his body, and its function. Depending on the experiences with the parent, the body and body parts may be conceived as good or bad, pleasing or repulsive, clean or dirty, loved or disliked.<sup>1</sup>

<sup>1</sup> Lawrence C. Kolb, "Disturbances of the Body-Image," in American Handbook of Psychiatry, ed. Silvano Arieto, (New York: Basic Books Inc. Publishers, 1959), p. 753.

Gradually the handicapped child compares and identifies with the bodies of others, and he appraises the physical equipment which he has for use -- legs that cannot walk and run, hands that cannot write, ears that cannot hear, or eyes that cannot see. In the peer group the child becomes aware of his ability to compete, and the attitudes of his peers reflect to him his adequacy. Generally good muscular coordination, strength, endurance, and the achievement of a variety of skills tend to increase the child's feeling of personal worth and his status with his family and peers, and lack of these attributes denies him a feeling of adequacy in these areas. It is reasonable to assume that physically handicapped children appraise themselves as less adequate as physical organisms than do the non-handicapped students.

2. Self reports of physically handicapped boys and girls show significantly less close personal relations and less social participation than do those of non-handicapped students. The emotional climate of the home and the quality of interpersonal relationships are significant in the development of the self concepts of all children. Alpenfels stresses the importance of the emotional quality of the child's first interaction with others. She writes of the development of the self concept as "a matter of the quality of the warmth, the consistency, and the sense of security that we, the adults, have learned in our culture to give him (the child) that will affect all he says and does and feels not only in reference to others but to himself."<sup>1</sup>

Both physically handicapped and non-handicapped children may find

<sup>1</sup> Ethel Alpenfels, "Culture Shapes Self," Childhood Education, 33:7 (March, 1957), p. 295.



warmth, support, and acceptance within the family circle, and children in both groups may face problems in this area. However, additional problems are often faced by children with handicaps. For many handicapped children the pattern of family living is negatively influenced by the child's deformity. Although some parents can accept their defective children for what they are, other parents feel guilty, resentful, and socially stigmatized for having produced a defective child. 1, 2, 3

Research indicates that the handicapped child is frequently a great burden in time and money. The expense of his care may deprive the whole family of essentials. Sometimes the siblings may be exploited in caring for the child or may be neglected because of the time and attention given to the handicapped one.<sup>4</sup> Seldom does the deformed child receive the same treatment in the home as do the siblings, being treated either with greater consideration, with less approval and warmth, or even with open hostility. Studies discussed later in this study substantiate these ideas.

In addition to the problem which may arise in the home, the physically handicapped child is often denied normal play activities. He may lack

<sup>1</sup> Roger G. Barker, and Beatrice A. Wright, Lee Meyerson, and Mollie R. Gonich, Adjustment to Physical Handicap and Illness, (New York: Social Science Research Council, 1953), pp. 29-30.

<sup>2</sup> Ann W. Powers, "Mother-Child Relationships in the Rehabilitation of the Physically Disabled," Social Casework, 32:6 (June, 1951), p. 262.

<sup>3</sup> Kolb, op. cit., p. 755.

<sup>4</sup> Viola Cardwell, Cerebral Palsy, Advances in Understanding and Care, (New York: Association for the Aid of Crippled Children, 1956), p. 115.

opportunity to participate, and often he has little to offer the peer group by way of strength and skills. Restrictions in his peer group activities deny him valuable information and deny him one source of opportunity to broaden his base of interpersonal relationships. The handicapped subjects in this study face an additional disadvantage in the fact that they do not attend school in their home communities. Very few friendships developed in school have opportunity to flourish outside of school for the children, many of whom are unable to use public transportation, may live as far as fifteen miles apart.

3. Physically handicapped students report themselves as significantly less adequate in terms of the capacities, abilities, and skills that they have for use than do non-handicapped students. Boys and girls need abilities and skills "on which to grow," although each child does not need the same attributes to the same degree. Like the non-handicapped child the physically handicapped student has capacities, abilities, and skills. However, because a handicapped child lacks a tool required by the culture, resulting in motor or sensory deprivation and/or distorted perception, his life experiences are different from those of the physically normal child. The scope of the skills which he can develop and the opportunities to use these skills are more limited.

Other people appraise the child in terms of the quality of the skills he offers, and the child, in turn, appraises his equipment and what he feels it can do for him. How the individual appraises his capacities, abilities, and skills will greatly affect his present and future behavior. Redl and Wattenberg<sup>1</sup> and Michael and Smith<sup>2</sup> stress the importance of the

<sup>1</sup> Fritz Redl, and William M. Wattenberg, Mental Hygiene in Teaching, (New York: Harcourt Brace, and Company, 1951), p. 104.

<sup>2</sup> H. Michael and R. Smith, Critical Analysis of Psychological Tests in Use with the Cerebral Palsied, (New York: United Cerebral Palsied Association of New York State, 1956), p. 8.

meaning that the skill or ability has to the child. Not only is it important to know what attributes a child has, but it is essential to know how he feels about what he has in order to ascertain what he is likely to do with his abilities and skills.

4. Students with physical handicaps report themselves as significantly less adequate in goals and satisfying work and recreation pursuits than do the non-handicapped students. Both handicapped and non-handicapped children aspire to those aspects of the environment which they perceive as contributing significantly to the enhancement and the protection of the self picture.

Values, therefore, significantly influence behavior:

The values which are dominant for the individual at any one time, whether they be money, friendship, three meals a day, world peace, power over others, cooperation, or a Picasso, determine the individual's beliefs and actions....the values a person holds determine the direction in which his energies, skills, and abilities will be used.<sup>1</sup>

Values develop in various ways, and these processes have significance to this discussion: (1) satisfaction of physiological and emotional needs, (2) association of an object or situation with the love and approval of a significant person, and (3) reasoning and reflective thinking. Although all children arrive at their values in similar ways, the nature of these values and the levels of aspiration differ. One can assume, since the nature of interpersonal relations, the physiological needs, and the life experiences of many physically handicapped children differ from those of non-handicapped children, that the values held by each group differ. In addition, the level of aspiration for one or more goals differs as the handicapped group faces all the barriers to reaching their goals that physically non-handicapped children face, but, in addition, for the handicapped

<sup>1</sup> Toward Better Teaching, 1949 Yearbook, Association for Supervision and Curriculum Development, (Washington, D.C.: National Education Association), p. 154.

individuals an organic handicap which often cannot be removed has been inserted between the self desire and the goal.

5. Handicapped students report themselves as possessing significantly less emotional stability and using more physical manifestations in self adjustment than do non-handicapped students. Problems arise for all persons when basic needs are not met.<sup>1</sup> When an individual experiences events and situations which are perceived by him as inconsistent with his self concept, these experiences may appear threatening to him.

Handicapped children have needs for self adjustment in the same situations as do non-handicapped children, but they tend to face additional problems. The fact that a physical defect has been inserted into the life space of a child constitutes a factor of adjustment<sup>2</sup> as the irreparable barrier of a physical disability is inserted between the individual and one or more of his goals. At the same time, the handicapped child faces additional problems: (1) the problem of facing new psychological situations with greater frequency than the non-handicapped child and (2) the problem of living in a world of overlapping psychological situations, those common to the world of the non-handicapped in which he lives and those that are part of his life space and of those with a similar physical handicap.<sup>3</sup>

The nature of the techniques of adjustment selected is influenced for

<sup>1</sup> Board of Education of New York City, loc. cit.

<sup>2</sup> William M. Cruickshank, "Psychological Considerations with Crippled Children," in Psychology of Exceptional Children and Youth, ed. William Cruickshank, (Englewood Cliffs, New Jersey: Prentice Hall, Inc., 1955), p. 300.

<sup>3</sup> Meyerson, op. cit., 37-48.



some handicapped children by the restricted life space, the narrow base of experience, and the kinds of adjustments which proved satisfying when long periods of hospitalization and convalescence were significant parts of their life situation.

#### Self Reports of Students in Various Categories of Physical Handicap

6. Students in the various categories of handicap perceive themselves as significantly different in physical adequacy according to the nature of the disability. The specific nature of the motor or sensory loss is significant. The extent to which a handicap is visible to others influences the nature of the appraisals which others reflect to the individual. This affects the child with a motor disability particularly, for his disability is evident to everyone. "Unfortunately, a cast or brace may be so distracting that the child himself is overlooked."<sup>1</sup>

In addition, the child himself will appraise the physical equipment which he has in terms of what it will do for him, especially in reference to strength, skill, beauty, and other physical attributes valued by the society in which he lives. It follows, then, that boys and girls with the same physical handicap but with varying degrees of involvement will differ in their self appraisals.

7. There are significant differences in the ways in which pupils in the various categories of handicaps perceive the important people in their world. When the child's handicap becomes a family problem with financial implications, feelings of being neglected or exploited on the part of the

<sup>1</sup>  
Frances P. Connor, "The Education of Crippled Children," in Education of Exceptional Children and Youth, ed. William W. Cruickshank and G. Orville Johnson, (Englewood Cliffs, New Jersey: Prentice-Hall, Inc., 1958), p. 429.

siblings as they give personal care to the handicapped child, and/or feelings of guilt or shame on the part of the parents, the interpersonal relations in the home are disturbed. Other problems may arise during long hospitalizations when many young children interpret separation from home as punishment in the form of parental desertion.<sup>1</sup>

Inability to communicate freely may present problems. The deaf baby does not hear inflectional meanings which are often more significant than the words that are spoken. The hearing impairment continues to present a problem, because identification with adults in the environment and peers is fundamentally related to language. Therefore, children lacking in oral communication skills may have problems in human relations. Additional problems can arise when the vision impaired child or the child with orthopedic or chronic involvements is protected, sheltered, or ignored to a degree that social experiences are restricted, and the base on which he can build warm personal relations is narrow.

Some disabilities preclude the child's participation in the activities of the peer group while others may permit limited or, in a few cases, almost full participation as the child is able to contribute effectively to group goals. The nature of his participation influences the appraisals which he receives from his age-mates. In the above discussion there are indications that the ways in which pupils with differing handicaps perceive the important people in their world varies.

8. The students with different types of handicap vary significantly in their perceptions of the capacities, abilities, and skills they have for

<sup>1</sup>  
Joseph Newman, "Psychological Problems of Children and Youth with Chronic Medical Disorders," in Psychology of Exceptional Children and Youth, ed. William M. Cruickshank, (Englewood Cliffs, New Jersey: Prentice-Hall, Inc., 1955), p. 398.

use. Appraisals of the significant people in their world have reflected to handicapped children whether or not they are valued for doing worthwhile things. In addition children compare their accomplishments with the adults and classmates with whom they identify and with whom they are thrown into competition. The nature of the physical defect has a direct bearing on what skills and abilities can be developed. Some disabilities interfere with the child's performance of skills valued by the peer group and the larger society, while other defects may not. However, citing the external and objective evaluation of what abilities and skills the child is physically capable of developing is not sufficient. What the child will do with his skill potential and how he will use the abilities and skills that he has developed are determined by his self concept.

9. The children in the various classifications of handicap differ significantly in the objects, situations, and events which they identify as having meaning for them. Lack of experiences for the crippled child, restricted activity for the child with cardiac involvement, and lack of some pertinent information on the part of boys and girls with auditory and visual impairments result in life experiences that vary with each group. Myklebust proposes the theory that where sensory deprivation exists the individual uses his remaining senses differently, and the resulting experiences are structured differently. A different perceptual organization prevails. When experiences among the groups are constituted differently, then meaning varies.<sup>1</sup> The nature of the handicap relates directly to which situations, events, and objects can be enhancing or threatening to the child.

1.

Helmer R. Myklebust, The Psychology of Deafness - Sensory Deprivation, Learning, and Adjustment, (New York: Grune & Stratton, 1960), pp. 1, 48, 224-225, 229.

10. There are significant differences in the ways in which groups of students in the various areas of handicap adjust to threatening situations. The ideas discussed under previous hypotheses, numbered 6 to 9, relate generally to the nature of the situations which may prove threatening to the child's self enhancement and self maintenance and in which the child will have need for the use of mechanisms of adjustment. When a handicap is visible, the child may be denied entrance into "desirable behavioral regions." Some handicaps may help place children in new psychological situations with great frequency. Children may be confused when they are permitted to play differing social roles in the larger society and the handicapped society. In addition, the nature of the handicap may result in significant life goals being only partially attainable or denied. As has been indicated each type of handicap carries with it its own "psychological burden" and the individual's understanding of it, both of which must be incorporated into his life space.

#### Self Concept and Ideal Self Concept Congruency Among Handicapped and Non-handicapped Students

11. The handicapped children register significantly more self concept--ideal self concept congruency than do physically normal children. Generally, handicapped students have had school experiences in an environment of the handicapped. Social experiences in the larger community have been restricted for many of these boys and girls. Protective home and school environments have limited their direct experiences with a variety of people playing diverse roles. Few children have opportunities to develop realistic ideas of what constitute the abilities and the experiences of a successful individual. Even less information is available to the child who lacks communication skills or who lacks information as a result of defective sight.



Wenar compared the adjustments in levels of aspiration made by non-handicapped and handicapped children in performing tasks at the peg board. He concluded that the handicapped children performed without realistic critical evaluation, without ability to maintain a realistic goal over a period of time, and with a shift in attitude on repeated trials from what they could do to what they would like to be able to do.<sup>1</sup>

#### Significance of the Study

Understanding the self concept of a child aids the teacher in interpreting his behavior, recognizing the dominant influence his self perceptions exert on his attitudes toward school and learning, and offering appropriate instructional experiences and guidance.

The majority of studies of the self concepts of children include subjects from a generally non-handicapped population. Where such investigations have been made of handicapped groups, the following trends have been noted:

Studies tend to compare one group of children with a specific handicap to a control group of non-handicapped children; to compare subjects with varying degrees of the same handicap.

Many of these studies include subjects selected from the populations of state schools, hospitals, or out-patient clinics.

The majority of the studies investigate the "quality" of the self concept or focus on one aspect of the self concept in an attempt to evaluate and label children.

Chapter IV, "Review of the Literature," refers to studies designed to determine social or emotional adjustment, social position in the classroom, response to frustration, rigidity of behavior, motor performance, attitudes of parents and personality factors in mothers, dominant personality studies, reaction to failure experiences, and other related dimensions.

<sup>1</sup>  
Charles Wenar, "The Effects of Motor Handicap on Personality: The Effects on Level of Aspiration," in Child Development, 24 (1953), pp. 123-130.

This study is designed to investigate the "content" of the self-concepts of children with a variety of physical handicaps who attend one public school serving a large city and an adjoining county. Knowledge of how the child feels about himself and his world is essential if the school is to provide curricula designed to meet the specific needs of these students. Knowledge of the perceptions, attitudes, and evaluations that are included in the self concept enables the teacher to deal more effectively in a number of areas affecting the child:

Learning the problems that the child faces, the restrictions that he feels hinder their solution, and the frustrations that develop in these attempts

Helping the child make greater use of the skills and abilities in his area of handicap as well as those in which he perceives inadequacy

Guiding the child to learn more about his own assets and limitations and to make a variety of adjustments based on a knowledge of himself

Assisting the child in establishing goals in harmony with his abilities and disabilities as well as the demands of society; in developing self concepts and ideal self concepts that are more congruent as a means of promoting more effective learning<sup>1</sup>

Promoting development of an emotionally healthy individual in order that he can make his adjustment in the broader society and economy of the community<sup>2</sup>

Providing the experiential background out of which the individual can make wise choices as he faces change in himself intellectually and physically and lives in a culture undergoing rapid change.

<sup>1</sup>  
Hugh Victor Perkins, A Study of Selected Factors Influencing Perceptions of the Changes in Children's Self-Concepts, (Unpublished Doctor's dissertation, New York University, 1956), p. 224.

<sup>2</sup>  
G. Orville Johnson, "Guidance for Exceptional Children," in Education of Exceptional Children and Youth, ed. William M. Cruickshank and G. Orville Johnson, (Englewood Cliffs, New Jersey: Prentice-Hall, Inc., 1958), p. 631.

### Delimitations of the Study

This study was confined to a portion of the population of the one public school serving physically handicapped children in Baltimore. Because the self reports of the boys and girls were gathered from pencil-and-paper instruments, only those children could be studied who had attained approximately a fourth-grade reading level. This criterion tended to limit the study to students in grades 4 to 9. Of this group some children in grades 4 and 5 and those in the Hearing Impaired Department were eliminated because of lack of sufficient reading facility. Severely involved cerebral palsied children who cannot hold pencils to write and cannot speak clearly enough for the tester to obtain their responses orally were also omitted. Although absentee testing made it possible to include those students with short-term absences, other children who had been included in the original plan could not be tested because of long hospitalizations or involvements requiring bed-rest at home. Therefore, it is noted that the investigation is limited in terms of the kinds of children studied and the size of the sample.

Recognition is made of the fact that the self report is at best an approximation of the self concept of the child. In addition, the instruments used provide only a partial description of the self picture. Therefore, the instruments themselves are a limitation in obtaining precision in the study.

Because of the nature of the hearing impaired and vision impaired handicaps, the methods of the administration of the test-instruments varied with each group of children. An exact description of these methods is described in this paper. The children with orthopedic difficulties used the instruments as they were designed. However, one test instrument called for a

time limit. Because many of these subjects have difficulty with muscular coordination and must move and write slowly, adjustments were made so that the time limit did not exert a pressure. In addition, the test of 200 items was administered to the younger children in two sittings on the same or consecutive days. Since the test was designed to gain information in a thoughtful manner and not to privilege or penalize a child for speed, it is assumed that this adaptation was in keeping with the spirit of the test.

Finally the conclusions of this study apply only to the selected physically handicapped students and the control group of physically non-handicapped students who were tested.

### Organization of the Dissertation

Educators face the responsibility of guiding youth toward effective living for today in order that they may be competent citizens of an unpredictable tomorrow. The first chapter of the document cites the quality of the child's interaction in his immediate environment and what he accepts himself to be as shaping what he believes, how he behaves, and what he learns. Five facets of the self concept are identified as significant in seeking to learn the point of view of the child. The problem of the study is stated and terms significant to the discussion of the problem are defined. The hypotheses guiding the research are listed with a brief rationale for each. A concise statement of the significance and the limitations of the study follow.

Chapter II traces the development of the self concept in the individual and gives the rationale for the five major themes identified in this study as basic to the self concept. In Chapter III similarities and differences among physically handicapped and physically non-handicapped children are cited. Each of the major types of disability appropriate to this study



is identified and related to the nature of the perceptions and the quality of the experience permitted the individual. Findings from some of the pertinent research studies related to the investigation of the self concepts of physically handicapped and physically non-handicapped children are reviewed in Chapter IV. The design of the research is explained in Chapter V. Findings of the research relating to the three sub-problems posed by the study are reported and discussed in Chapters VI, VII, and VIII. The summary, conclusions, and implications of the self concept construct for educational planning in the aforementioned public school for physically handicapped children are presented in Chapter IX.

## CHAPTER II

### RATIONALE -- THE SELF STRUCTURE

A growing understanding of the role of perception and the concept of self is important to the understanding of human development and behavior. The frame of reference which is presented has served to guide the investigation of the self concepts of a selected group of children. The constructs of the rationale have suggested the design of this study, prompted an organization to permit the interpretation of the data gathered, and influenced the scope and conclusions.

#### Constructs Relating to the Role of the Self Concept in Behavior

1. The human being has an innate drive to discover his potentials and to actualize the self. The self is a dynamic process moving the organism toward self maintenance and self enhancement. Combs and Snygg<sup>1</sup> and Rogers<sup>2</sup> support the view that the human being has one basic tendency, that of maintaining and actualizing the experiencing organism. Rogers<sup>3</sup> describes the individual as a "continually changing constellation of potentialities," and Fromm<sup>4</sup> sees the one real interest of the person as the full development of

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<sup>1</sup> Arthur W. Combs and Donald Snygg, Individual Behavior, (New York: Harper and Brothers, 1959), p. 55.

<sup>2</sup> Carl R. Rogers, "What It Means to Become a Person," in The Self, ed. Clark E. Moustakas, (New York: Harper and Brothers Publisher, 1956), p. 202.

<sup>3</sup> Ibid, p. 211.

<sup>4</sup> Erich Fromm, "Selfishness, Self-Love and Self-Interest," in The Self, ed. Clark E. Moustakas, (New York: Harper and Brothers, 1956), p. 63.

his potentialities, of himself as a human being.

Bills states that self attainment or self realization "seems to account for all of our behavior other than that which is needed for maintaining the organism."<sup>1</sup> Rollo May understands Man as a "being-in-the world" who is ever in the process of being and becoming and believes that the behavior of a person can be understood only as "we see what he is moving toward, what he is becoming...."<sup>2</sup> Inherent in Man is the drive to become, a consequence of growth, change, and a constant emerging of self.

As a result of physiological and psychological processes, behavior emerges from the total biological and experiential backgrounds of the human being. Rome and Robinson stress the unfractionated and adaptive nature of the individual, but indicate that his growth and behavior must operate within "the broad generic limits of human biologic capacity."<sup>3</sup> The organism behaves as a whole, a single entity with any happening that touches on one part affecting the whole.<sup>4, 5</sup> Therefore, certain concepts are developed herein with the view that the organism behaves in its totality, and the

<sup>1</sup> Robert E. Bills, "About People and Teaching," Bulletin of Bureau of School Service, University of Kentucky, 28:2 (December, 1955) p. 16.

<sup>2</sup> Rollo May, "The Existential Approach," in American Handbook of Psychiatry ed. Silvano Arieti, (New York: Basic Books, Inc. Publishers, 1959), p. 1352.

<sup>3</sup> Howard P. Rome and David B. Robinson, "Psychiatric Conditions Associated with Metabolic, Endocrine, and Nutritional Disorders," in American Handbook of Psychiatry, ed. Silvano Arieti, (New York: Basic Books Inc., Publishers, 1959), p. 1261.

<sup>4</sup> Willard C. Olson and Bryon O. Hughes, "Concepts of Growth -- Their Significance to Teachers," in Readings for Educational Psychology, ed. William A. Fullager, Hal G. Lewis, and Carroll F. Cumbee, (New York: Thomas Y. Crowell Company, 1956), pp. 103-106.

<sup>5</sup> Kurt Goldstein, "The Organismic Approach," in American Handbook of Psychiatry, ed. Silvano Arieti, (New York: Basic Books Inc., Publishers, 1959), p. 1333.

processes that are identified function as part of a single system:

The growth, maturation, and development of the organism permitting more complex behavior

The capture and use of energy to satisfy the need for activity directed toward purposes that are useful to the individual

The developmental tasks that emerge as the individual attains ever increasing levels of complexity physically and psychologically

The self forces which give meaning to activity and determine whether the child will direct energies toward enhancement or defense of self.

Each is discussed in turn.

Growth, maturation, and development. As the individual achieves a more complex organization, he takes on more complex behavior for adequate adjustment in a complex environment. Growth and maturation produce changes that increase the functional possibilities for the organism, and with the exercise of function come changes in the structures involved, as well as functions. The interrelated processes of growth, maturation, and learning lead toward a "progressively expanding functional faculty of the child."<sup>1</sup>

Two interrelated aspects of growth are significant: (1) differentiation which involves the creation of differences, the emergency of originals and (2) integration which implies the organization of these differences.

The process of differentiation in physical growth is most apparent at the prenatal stage. At the time of conception, the structure and function of the unfertilized egg cease to exist, and new structures and functions emerge. The fertilized egg is a differentiated and differentiating organism. Instead of merely reproducing itself, cells appear that become nerve, muscle, bone, and glandular tissues. Body parts have become differentiated

<sup>1</sup> Leland W. Stett, The Longitudinal Study of Individual Development, (Detroit: Merrill-Palmer School, 1955), p. 7.

by the ninth week.<sup>1</sup>

However, the process of differentiation is not completed prenatally. Some teeth are differentiated after birth, and later, certain tissues become more clearly distinguished as bone. Although the nervous system is a unit at birth, the brain and nervous system are not yet ready to function with the coordination that can be achieved when the nerve cells of the cortex of the cerebrum have differentiated and integrated sufficiently to enable increased and more intricate mental activity to result.<sup>2</sup>

Differentiation which continues after birth does not take place in all parts of the body at one time. Neuromuscular organization proceeds from head to foot and from central to peripheral segments.<sup>3, 4</sup> A "mass to specific trend" in motor abilities proceeds from general movement to many kinds of specific behavior. For example, the child proceeds through orderly stages of development from the aimless reflex grasping of the hand to a fair degree of gross muscular control by about age 3, and to mastery of many of the fundamental motor abilities needed for survival by approximately 6 years of age.<sup>5</sup>

<sup>1</sup> Harold W. Bernard, Psychology of Learning and Teaching, (New York: McGraw-Hill Company Inc., 1954), p. 101.

<sup>2</sup> Lester D. Crow and Alice Crow, Child Psychology, (New York: Barnes and Noble, Inc., 1953), pp. 29-30.

<sup>3</sup> Arnold Gesell, "The Ontogenesis of Infant Behavior," in Manual of Child Psychology, ed. Leonard Carmichael, (New York: John Wiley and Sons, Inc., 1954), pp. 337-341.

<sup>4</sup> Helen Thompson, "Physical Growth," in Manual of Child Psychology, ed. Leonard Carmichael, (New York: John Wiley and Sons, Inc., 1954), p. 299.

<sup>5</sup> John J. Dashiell, Fundamentals of General Psychology, (New York: Houghton, Mifflin Company, 1949), pp. 68, 71.

As the child develops, basic abilities are improved and finer, more complex behavior is possible.

Growth and development result from the integration of differences as all parts of the organism participate in achieving a more highly differentiated, integrated, and organized whole, remaining a unit in motivation, reaction, behavior, and spirit. The nerves of the body are responsive to the heart, the bones, and the muscles; the glands are sensitive to the needs of the other parts of the body; energy is spent in ways that meet the needs of the total individual. Differentiation and integration enable the individual to learn new skills and behave in new ways. Anderson sees self development as a "growth" process in which there is a "confronting of differences" and a "responding to differences" and in which there is an abandoning of the individual's self as it is, for a new self in the process of emerging.<sup>1</sup> Through the process of differentiation and integration the essential unity of the physical organism is never lost.<sup>2, 3</sup>

Capture, transformation, and use of energy. Growth is a demanding process impelling the human being to capture, transform, and use energy obtained from the environment. The tendency of life is toward activity and progress, and, to this end, the human body both expends energy and

<sup>1</sup> Harold H. Anderson, "Social Development," in Manual of Child Psychology, ed. Leonard Carmichael, (New York: John Wiley and Sons, Inc., 1954), p. 1170.

<sup>2</sup> Leon J. Saul, Bases of Human Behavior, A Biologic Approach to Psychiatry, (Philadelphia: J. P. Lippincott Company, 1951), p. 104.

<sup>3</sup> Anderson, loc. cit.



attaches on to new energy potential, maintaining the homeostatic balance of the organism.<sup>1, 2</sup>

The discharge of energy, or behavior, is influenced by two major factors:

The way the individual feels and thinks about himself as a person and his choice for the use of available energy

The efficiency of the body as an energy-transforming machine.<sup>3</sup>

If energy is to be directed toward useful purposes, then it must be patterned, a function of the self organization. Some individuals have a great surge of energy flowing through their bodies which requires channeling into enjoyable and productive activity lest it overflow into undesirable behavior. The child with less energy available may appear dull and lacking in initiative, tire easily, need frequent opportunities for rest, require a longer time to complete assignments, and adjust to problem-situations by means requiring little physical activity. Illness and physical deformity may require a repatterning of energy use on the part of the individual. During illness the production of energy may be impaired at the same time that additional energy is needed to fight infection and replace damaged tissue. In addition, the child with an injury or deformity may have need to mobilize his energy toward compensation and adjustment.

Learning tasks that emerge. Persons living in the same society generally face specific developmental or learning tasks.

<sup>1</sup> G. L. Freeman, The Energetics of Human Behavior, (Ithica, New York: Cornell University Press, 1948), p. 34.

<sup>2</sup> Walter B. Cannon, Wisdom of the Body, (New York: W. W. Norton and Company, Inc., 1939), pp. 19-24.

<sup>3</sup> Glenn C. Dildine, "Motivated to Learn," in Readings for Educational Psychology, William A. Fullager, Hal G. Lewis, Carroll F. Cumbee, (New York: Thomas Y. Crowell Company, 1956), pp. 319-324.

Several factors influence the nature of the tasks to be accomplished and regulate the time and manner of achievement. When a body part grows and reaches maturity, there is a readiness for the part to function, and the individual faces new adjustments and new learnings. For example, learning to take solid foods, to walk, and to adjust to body changes in adolescence are tasks that have their origin specifically in physical growth and maturation and arise from natural needs of the child. On the other hand, our society has such specific expectations as children's learning to read at a particular time. Tasks such as choosing an occupation or developing a philosophy of life stem from self motivating forces. In addition, many tasks arise from a combination of the above factors, an inter-relatedness which arises from the fundamental unity of the individual.

Although each developmental task is specific, it is part of a series of learning tasks. The achievement or lack of achievement of a task at the appropriate time influences the confidence with which a child meets new learnings and the degree of success which the individual can have with subsequent tasks. For example, the child who fails to develop warm interpersonal relations in the home as a young child may have great difficulty establishing strong friendship ties and appropriate heterosexual relations in later life.

Success in these learning tasks promotes adjustment in the society in which the child lives. Havighurst states, "The human being learns his way through life."<sup>1</sup> While Nature provides vast behavioral potentialities for development, the possibilities that are realized depend on what the individual learns. Waetjen has indicated the interrelationship of the physical,

<sup>1</sup> Robert J. Havighurst, Developmental Tasks and Education, (Chicago: University of Chicago Press, 1948), p. 5.

social, and self factors in the developmental tasks, at the same time that he states that individual differences will be apparent in the way in which these common tasks are approached:

When there is sufficient maturation, and when the expectations and demands of society are clear and felt, then the individual will take over this (a) developmental task as his own, begin working on it at his rate of speed and in keeping with his motivations, his own desires, and his own aspirations.<sup>1</sup>

Self concept. What will be learned by an individual and what potentialities will be developed are determined to a great extent by his self concept. Although growth and maturation as defined above are specifically physical in nature, development which involves the interrelated processes of growth, maturation, and learning implies the operation of self forces. How a child sees himself in his situation gives meaning to selected activities and determines how he patterns his energy.<sup>2</sup>

Effective use of his knowledge and skills can bring to the child satisfaction, independence, and material security as he attempts to meet the demands of his world. Moments of insight and situations of success serve as motivating forces toward further development. Thus the child comes to see himself as one who can do things, who can amount to something, and to whom the doors of opportunity are open. As long as the child can accept himself, he can and must continue to develop his capacities. Otherwise his energies are used for defense rather than actualization of the self, and he is less able to deal with new people, situations, and problems.

The function of the self concept is developed in greater detail later in this chapter.

<sup>1</sup> Walter B. Waetjen, "Developmental Tasks," (College Park: University of Maryland, 1952), p. 4. (Mimeographed.)

<sup>2</sup> Fritz Redl and William W. Wattenberg, Mental Hygiene in Teaching, (New York: Harcourt, Brace and Company, 1951), p. 104.

2. The perceptions of the individual pattern his world and give direction to his behavior. Knowledge of the content of the experiences of an individual have little meaning, for standing alone, this information cannot explain human behavior.

The factors that determine behavior are those which are perceived by the behavior at the moment of his behavior. The demonstrations of visual perception conducted by Ames at the Hanover Institute show that neither the physical environment nor the physiological stimulus pattern determine what is perceived, but, given these necessary elements, what is actually perceived is that which represents for the perceiver the most likely prognosis for action based on his own needs and his own unique background of experience.<sup>1</sup> The environment does not provide the perceptions. Perceptions come from the individual, and what he perceives determines how he will behave.

Solley and Murphy call attention to two forms of the term, perception: (1) the process by which stimulation is structured and (2) the result or the product of the stimulation structuring process.<sup>2</sup> Patty and Johnson identify perception as a dynamic organizing process with behavior uniting the organism with the environment for a meaningful relationship.<sup>3</sup> Norberg quotes Cantril as he explains the selective and functional character of perception:

<sup>1</sup> Combs and Snygg, op. cit., pp. 82-101.

<sup>2</sup> Charles M. Solley and Gardner Murphy, Development of the Perceptual World, (New York: Basic Books, Inc., 1960), pp. 16, 338.

<sup>3</sup> William Patty and Louise Johnson, Personality and Adjustment, (New York: McGraw-Hill Company, 1953), p. 134.



....we may define a perception as an implicit awareness of the probable consequences an action might have for us with respect to carrying out some purpose that might have value to us. Perceptions are conceived and given birth to in purposeful action that results from value-judgments....a perception....has in it implicitly the factors of action, purpose and awareness of value.<sup>1</sup>

Ittelson and Cantril see in perception the externalization of certain aspects of the individual's experiences and the creation by him of his own world of things, people, sights, sounds, and tastes possessing the characteristics that he sees in them.<sup>2</sup> Waetjen indicates that perception is not only a process of organizing sensory data but includes an integrating and ordering process involving sensation, experience, and need. He gives emphasis to the time factor in viewing perception as a present experience that is future-oriented with roots in the past.<sup>3</sup>

In this paper perception is defined as a goal-directed and, therefore, selective process for organizing sensory data permitting the individual to interpret his environment and to create from his past and present experiences his own world of people, objects, and situations, the "reality" in which he will act. The term, perception, is also used where appropriate to indicate that which is perceived as a result of the process described above.

The frame of reference within which the individual perceives, his universe of experience, or the entire field from which his perceptions come is the perceptual field of that individual. Combs and Snygg call attention

<sup>1</sup> Kenneth Norberg, "Perception Research and Audio-Visual Education," in Readings for Educational Psychology, ed. William A. Fullagar, Hal G. Lewis, and Carroll F. Cumbee, (New York: Thomas Y. Crowell Company, 1956), p.32.

<sup>2</sup> William E. Ittelson, and Hadley Cantril, Perception -- A Transactional Approach, (Garden City, New York: Doubleday and Company, Inc., 1954), pp. 11-111.

<sup>3</sup> Walter Waetjen, "Psychological Theories," (College Park: University of Maryland, undated), (Mimeographed).

to some terms by which writers have identified the perceptual field: the personal field, the private world, the behavior field, the psychological field, the life space, and the phenomenal field.<sup>1</sup>

The material below provides the rationale for the function of perception in patterning the world and the behavior of the individual. Factors such as the following influence the perceptions of the individual: physical organism, motor or sensory deprivation, previous perceptions and other significant factors, and self perceptions. Each is discussed in turn.

Physical organism. The body provides the vehicle which makes perception possible. A human being can perceive only those sights, sounds, smells, and sensations for which he has equipment to receive stimuli from his environment.<sup>2</sup> On the other hand, although the reception of sensory stimuli is essential, it does not constitute the perceptual process. Solley and Murphy describe perception as a merging of four stages: (1) preparatory, (2) sensory-receptive, (3) trial-and-check, and (4) final structuring stage.<sup>3</sup>

The preparatory stage includes expectancy and attending, with the latter phase beginning just prior to and continuing through stimulation. "Expectancy is the psychological co-product of emerging purpose when related to potential action."<sup>4</sup>

The second stage is the sensory-receptive stage. Murphy sees needs as

<sup>1</sup> Combs and Snygg, op. cit., pp. 20-21.

<sup>2</sup> Ibid, p. 59.

<sup>3</sup> Solley and Murphy, op. cit., pp. 24-25.

<sup>4</sup> H. Cantril, "The Nature of Social Perception," Transaction of New York Academy of Science, 10 (1948), p. 145.

determining how incoming energies are structured.<sup>1</sup> Solley and Murphy explain that the resulting percept does not duplicate the physical properties of the stimulus but the incoming stimulus energy is operated on so that "a new structure" emerges.<sup>2</sup> Kephart views the perceptual process as a closed system with input and output processes but with no outside energy entering the system. The stimulus to which the organism responds is the pattern of neural impulses generated by the firing of sensory cells.<sup>3</sup>

Integration of stimuli takes place in the association areas of the cortex and permits the organism to consider all sensory information rather than just one stimulus at a time. This integration of sensory data is significant. In experiments in perceptual isolation, subjects were placed in situations in which sensory stimulation was reduced to a minimum. As these adults were deprived of their normal perceptual environments and when environments came too close to containing a single stimulus, the subjects became hallucinated, were unable to think critically, and became disoriented in space, among other abnormal behaviors.<sup>4, 5, 6</sup>

<sup>1</sup> Gardner Murphy, Personality: A Biosocial Approach to Origins and Structure, (New York: Harper Brothers, 1947), pp. 377-378.

<sup>2</sup> Solley and Murphy, op. cit., pp. 23-24.

<sup>3</sup> Newell C. Kephart, The Slow Learner in the Classroom, (Columbus, Ohio: Charles E. Merrill Books, Inc., 1960), pp. 55-58.

<sup>4</sup> D. O. Hebb, "The Motivating Effects of Exteroceptive Stimulation," American Psychologist, 13 (1958), pp. 109-113.

<sup>5</sup> W. Heron, B. K. Doan, and T. H. Scott, "Visual Disturbances After Prolonged Perceptual Isolation," Canadian Journal of Psychology, 10 (1958), pp. 13-18.

<sup>6</sup> J. Vernon, E. McGill, and H. Schuffman, "Visual Hallucinations During Perceptual Isolation," Canadian Journal of Psychology, 12 (1958), pp. 31-34.

In a trial-and-check stage of perception, hypotheses are tested, and new information is articulated through a feedback procedure.<sup>1</sup> What Solley and Murphy call the final structuring stage, final perceptual organization, or stage of conscious perception, Kephart calls the output process. This stage involves the patterning of neural impulses in the motor area of the cortex and can result in movement. "We are first conscious of stimulus when an output pattern has been generated. Thus, we cannot 'see' as we think of this process in our everyday speech, until we have an output pattern."<sup>2</sup> As an output pattern is fed back into the system, a closed system of control is created. This feed-back process can continue over and over again, enabling the individual to try out solutions to problems before he engages in overt movements. For what were once "raw, uninterpreted sensations,"<sup>3</sup> the individual can act on associated meanings.

The perceptual act described above is neither completely learned nor completely innate. The newborn can differentiate figure from ground, discriminate sources of stimuli, and attend to parts of his environment, but he must learn to see, hear, and smell in order to relate meaningfully to his environment. When perception takes place, a sensation is understood; the sight seen or the sound heard is recognized, indicating the nerve development necessary for accurate sensations to reach the brain and the "almost immediately accompanying psychologic interpretation of the meaning of these sensations."<sup>4</sup> Meanings accrue to the individual with development, and perceptual acts. Heredity, maturation, and prior experience influence the

<sup>1</sup> Solley and Murphy, op. cit., pp. 24-25, 33.

<sup>2</sup> Kephart, op. cit., p. 60.

<sup>3</sup> Marian E. Breckenridge, and E. Lee Vincent, Child Development, (Philadelphia: W. B. Saunders and Company, 1960), p. 357.

<sup>4</sup> Ibid, pp. 356-357.



quality of perception.<sup>1</sup>

Motor-sensory deprivation. The reception of sensory stimuli, although only one phase of the perceptual act, is essential to it. When motor and sensory deprivation limit or distort experience, the child is denied some of the stimuli available in the environment and may have different life experiences and see the world differently from the person who is not so deprived. Myklebust theorizes that deprivation of one type of stimulus causes the individual to alter the integration of other available stimuli, thereby constituting experience differently.<sup>2</sup> However, although handicapped persons experience differently, it should not be assumed that they necessarily have "fewer or poorer perceptions."<sup>3</sup>

Meyerson explored the effects of sensory impairment as he created experimental deafness in children and adults by plugging their ears for 24 hours. Acuity was reduced approximately 30 decibels, equivalent to a relatively slight handicap. The investigator was able to observe in his subjects the behavior often ascribed to the hard of hearing: avoidance of social contacts, delayed reaction or no reaction to verbal clues, increased evidence of "inappropriate" behavior, increased fatigue and irritability, change in voice quality, and evidence of attempts to conceal the handicap by "pre-occupation." From his investigation Meyerson concluded that the socially and psychologically undesirable behavior ascribed to physically handicapped

<sup>1</sup> Solley and Murphy, op. cit., pp. 130, 318-319.

<sup>2</sup> Helmer R. Myklebust, The Psychology of Deafness -- Sensory Deprivation, Learning, and Adjustment, (New York: Grune and Stratton, 1960), p. 1.

<sup>3</sup> Combs and Snygg, op. cit., p. 68.

persons does not arise because the disabled are different kinds of people, but because they have been subjected to different kinds of life experiences."<sup>1</sup>

It has been noted that sensory deprivation can limit and/or modify experience, but other physical limitations may modify experience for the handicapped child. For example, normal body functioning may be impaired as a result of damage to the nervous system resulting from cerebral palsy. For some children brain damage may cause them to be extremely distractible, unable to control perception, and incapable of keeping attention on one thing for a reasonable period of time. Other cerebral palsied students may perceive effectively and clearly, but impaired body functioning may place restrictions on mobility.

Redl and Wattenberg see physical handicaps hindering normal play outlets as children lack the tools and skills needed for participation in a child society which values strength and physical skills. "The strong will receive more admiration from children and adults. The child denied full participation in peer group activities lacks an important source of information."<sup>2</sup> Barker notes that physically disabled children are deprived more frequently than non-handicapped children of the important adjustive function of play, the exploration of the world and their emotions and ideas.<sup>3</sup>

Previous perceptions and other factors. Perceptions have a degree of

<sup>1</sup> Lee Meyerson, "Experimental Injury: An Approach to the Dynamics of Personality," Journal of Social Issues, 4:4 (Fall, 1948), pp. 68-71.

<sup>2</sup> Redl and Wattenberg, op. cit., pp. 119-120.

<sup>3</sup> Roger G. Barker, "The Social Psychology of Physical Disability," Journal of Social Issues, 4:4 (Fall, 1948), pp. 29-30.



permanence, and therefore, all previous perceptions or experiences influence present and future perceptions. Combs and Snygg illustrate this concept by referring to Dr. Burt's reading of Greek poetry to his infant son. At ages 8, 12, and 16 the boy memorized selections including, among others, those which he had heard as a baby. The passages that he had heard as a baby were learned more quickly than the others.

The above authors indicate that differentiations that have been made in the field probably remain forever: "Awareness is an irreversible process....once an event has been experienced, this experience cannot be reversed. Perceptions once experienced form the groundwork for all later perceptions."<sup>1</sup> In this frame of reference that which is "forgotten" does not "fade out," but rather as the field becomes reorganized in the light of new perceptions or differentiations, some perceptions are not readily brought into clear figure. The Ames' demonstrations in perception illustrate how the individual uses ways of perceiving learned in the past as he meets new situations.<sup>2</sup>

When new events appear inconsistent with former experience, these are brought into consistency with more basic perceptions. Bone recognizes the psychological need for perceiving a completed whole,<sup>3</sup> and Patty and Johnson indicate that in order to achieve this the individual may resist ambiguous situations "by failing to see or by distorting what he sees, or by changing his whole plan of action."<sup>4</sup> As the perceiver meets incomplete or slightly

<sup>1</sup> Combs and Snygg, op. cit., p. 98.

<sup>2</sup> Ibid, pp. 98-101.

<sup>3</sup> Harry Bone, "Personality Theory," in American Handbook of Psychiatry, ed. Silvano Arieti, (New York: Basic Books Inc. Publishers, 1959), p. 91.

<sup>4</sup> Patty and Johnson, op. cit., p. 133.

incorrect figures, he tends to "fill in." The perceiver makes each stimulus what he must make it on the basis of his experience as a functioning, purposive organism. Kelley notes that the individual is most content when all ways of knowing are brought to bear on his surroundings and when they support each other.<sup>1</sup>

In addition to previous perceptions, needs influence perceptions. Murphy notes: "...it is the need pattern that plays the chief role in determining where we shall look, to what outer stimuli we shall attend, what other factors shall be allowed to enter the control box (selector-system)."<sup>2</sup> The reaction to needs is often so automatic that the individual is not aware of their influence and may even deny that they do exist. Solley and Murphy recognize the "primary motives" of hunger, thirst, and sex as needs but also include curiosity and the need to maintain extroceptive contact with the environment. They state, "In a real sense our perceptions coordinate our actions with our environment so that we can successfully meet our needs."<sup>3</sup>

Combs and Snygg identify the individual's search for self maintenance and self enhancement or the search for greater adequacy as the fundamental need.<sup>4</sup> The individual selects from all that he might perceive that which is meaningful in his search to organize his field and satisfy his fundamental

<sup>1</sup> Earl C. Kelley, Education for What is Real, (New York: Harper and Brothers, 1947), pp. 32, 49.

<sup>2</sup> Murphy, op. cit., p. 109.

<sup>3</sup> Solley and Murphy, op. cit., p. 27.

<sup>4</sup> Combs and Snygg, op. cit., p. 54.

need, the need which provides the direction, drive, and organization for his every behavior. Many studies have reported the influence of need on perception, and a number are referred to by Snygg and Combs. For example, one investigation revealed that children from poor homes perceived a half-dollar coin as larger in size than did children from wealthy homes. Another study indicated that value words were seen most quickly of all the words flashed on the tachistoscope.<sup>1</sup>

Although need is a significant factor in motivating and ordering perception, Combs and Snygg suggest the negative effect that is created when need is so strong as to narrow attention to the point of preoccupation. A high degree of concentration on one area of the perceptual field may confine perception to a limited area, creating "tunnel vision" in which some limited perceptions are in clear focus; others are blocked out; other perceptions become unavailable. Such a narrow view of the field prevents the perception of events from a broader perspective.<sup>2</sup>

Goals and values influence perception as they cue the individual to the behaviors to seek or to avoid in order to meet his needs. How strongly his goals are differentiated is directly related to the degree to which they lead to need satisfaction. In addition, goals and values become a frame of reference in which future events are interpreted and have a selective effect on future perceptions. The influence of values on behavior is developed in more detail later in this paper.

<sup>1</sup>  
Ibid, pp. 55-56.

<sup>2</sup>  
Ibid, p. 167.

Other factors also influence perception. The individual finds in his world of people, things and abstract ideas many opportunities for a variety of concrete and vicarious experiences that provide much of the raw material for experience. "What people perceive is necessarily limited by the opportunities to which they have been exposed."<sup>1</sup> Opportunities exist in the cultural influences which help mold the meanings, beliefs, and values of the individual, and as a result, his perceptions tend to become more and more like those of the significant people in his world.

Along with opportunity, time is required to perceive a given event, but the amount of time needed varies for something the individual "knows" or is "set" to perceive and for events which the individual has not differentiated previously.<sup>2</sup> In addition, Maslow indicates that time may influence the quality or the nature of the perception. He states that perception is often a classification, ticketing, or labeling of the experience, as the perceiver tends to perceive the familiar rather than the unfamiliar, the structured rather than the unnamable, the meaningful rather than the meaningless, the convenient over the inconvenient, and the expected in preference to the unexpected:

True perception, which would encompass the object, play over it, soak it in, and understand it, would obviously take infinitely more time than the fraction of a second that is all that is necessary for labeling or cataloging.<sup>3</sup>

<sup>1</sup>  
Ibid, p. 84

<sup>2</sup>  
Ibid, p. 81

<sup>3</sup>  
A. N. Maslow, Motivation and Personality, (New York: Harper Brothers, 1954), pp. 268-269.

Self perceptions. Self perceptions provide the core around which all other perceptions are organized. The ways in which an individual perceives himself and his world determine his actions, because behavior is a function of perception. "Self is a basic variable affecting and controlling perception."<sup>1</sup> All the perceptions which are meaningful to the individual derive their meaning from their relation to the self already in existence. Perceptions which appear to have no relation to the self-structure may be ignored, while experiences that are inconsistent may be distorted or denied symbolization.

Bills reports that individuals scoring higher in self-acceptance tended, among other characteristics, to be more dominant, participate more actively, have less anxiety, and be more efficient intellectually. Those with lower acceptance of themselves reported twice as many physical complaints, underestimated their performance, tended to blame themselves, and showed signs of depression when facing a sizable discrepancy between how they saw themselves and their goals.<sup>2</sup> When the child has feelings of adequacy, he can reach out for experiences. His feelings of "can" and "can't" are significant in determining how he approaches situations and people and the freedom with which he can participate with others.

The self concept has further significance in that it influences the child's perceptions of other people. As he perceives himself, so will he perceive others. This idea is supported by Axline: "As we find ourselves so must we find others...."<sup>3</sup> As the child feels important, respected,

<sup>1</sup> Combs and Snygg, op. cit., p. 122.

<sup>2</sup> Bills, op. cit., pp. 18, 19.

<sup>3</sup> Virginia M. Axline, "Meeting the Crisis," Educational Leadership, 14:6 (March, 1957), p. 333.

capable, valued, or the opposite, so will he tend to judge those with whom he comes in contact.

Even though an individual's behavior may appear to the observer to be "defeating," it is most "useful" behavior available to the child at the moment of acting in terms of his level of development and his unique view of himself and his world. Combs and Snygg suggest that no one ever remotely approaches the "upper limits of perception," but there would seem to be no end to the perceptions possible to an individual given a healthy physical organism, sufficient amount of time, stimulating environment, challenging problem, and non-restrictive self concept. However, the authors recognize that no one can or should respond to everything in his environment, and perceptions do become specialized in terms of previous experiences.<sup>1</sup>

3. The self concept emerges as a result of the interaction of the individual with other persons. Initially behavior is biological and becomes social only after interaction with people. At birth the child is a biological organism whose first actions emanate from his efforts to satisfy physiological needs. He comes into the world with certain hereditary patterns and inherent capacities predetermined at the moment of conception. Which of these patterns and capacities are developed and the manner in which this development takes place depends on the parents of the child, the child himself, and the environment created by society.<sup>2</sup>

The child comes into the world with no clear idea of the boundaries of his body and no distinction between "self" and "not-self." Increased differentiation aids the child in developing self-awareness for with increased

<sup>1</sup> Combs and Snygg, op. cit., pp. 216-217.

<sup>2</sup> Abram Scheinfeld, The New You and Heredity, (New York: J. B. Lippincott Company, 1950), p. 320.



physical maturity, greater capacity for movement, increased coordination of the sensory nerve endings of the boundaries of the organism and their neuro-muscular connections, the child begins to explore his own body and to define its limits. Gradually he begins to distinguish between "self" and "other," and a self system begins to develop which keeps track of its parts, anticipates their positions and boundaries, and acts as one organismic whole.<sup>1</sup> Murphy stresses the early relation of the organism to self development: "Self is originally an image of one's body development through recurring experiences of sensual pleasure, an image developing out of body-oriented canalizations which are resistant to change because they are constantly satisfying."<sup>2</sup>

Kimball Young and others stress the importance of interpersonal relationships and state that, granted biological limits, what the child wants to achieve will reflect what those about him want him to achieve. How the development of the self concept comes about depends on several kinds of experiences which do not occur separately or in any particular sequence:

The child learns who he is and develops an awareness of his own value as he lives in a relationship of affection with one or several persons.

The child assumes roles and takes over by introjection the responses of others, and he makes them a part of himself.

The child develops language through his interaction with other people, a process significant to the development of the self concept.

Each of these experiences is discussed.

<sup>1</sup> Lawrence E. Cole and William F. Bruce, Educational Psychology, (New York: World Book Company, 1950), p. 320.

<sup>2</sup> Murphy, loc. cit.

Nature of interpersonal relationships. From the moment a child is born he begins to relate to other people, a situation which continues throughout life although the expression of the relationship varies at different developmental levels. At birth the child may seem passive in his interpersonal relationships as his total energy is directed toward the satisfaction of his physical needs. However, it is at this stage, when he is capable of receiving sensations of temperature, pain, movement, and the satisfaction that comes from the release of internal tensions, that the child's fundamental orientation to the world begins.

The infant first finds out about love as his mother responds to his needs with feeding or a fresh diaper. Alpenfels stresses the importance of the emotional quality of the child's first interaction with others:

"Baby's first satisfied cry for food is also his first step toward self. It is....a matter of the quality of the warmth, the consistency and the sense of security that we, the adults, have learned in our culture to give him that will affect all he says and does and feels not only in reference to others but to himself."<sup>1</sup>

Very early the mother becomes synonymous with warmth, comfort, and food.

Plant states that the earliest transmissions of love are through the psychomotor tensions. "The mother who cuddles her child conveys to him some deeply imbedded realization that he 'belongs.'"<sup>2</sup> When the mother smiles and holds her child securely with gentle affection, he feels comfortable and content; he has a favorable emotional reaction to his environment; his world is a warm and accepting place.

This developing relationship with mother begins at a time when the child has not differentiated between "self" and "not self." What mother is,

<sup>1</sup> Ethel Alpenfels, "Culture Shapes Self," Childhood Education, 33:7 (March, 1957), pp. 294-296.

<sup>2</sup> James S. Plant, Personality and the Cultural Pattern, (New York: The Commonwealth Fund, 1937), p. 96.

he himself is.<sup>1</sup> He has no judgment apart from hers; how she values him has strong influence on how he comes to value himself. It is largely through the relationship with mother that the child learns "what a person is."

Gradually through time, other members of the family are experienced and assume importance as possible sources of love, care, and support. The role of the father may be a more indirect one but is important, nevertheless. The love and understanding that he offers the mother are basic to her emotional stability and contribute to the baby's welfare for his psychological development is influenced by the tone of parental relationship.<sup>2</sup> The child's emotional relationship to his father begins later, becoming more important from the second year on. Gradually siblings and other household members become significant in establishing a quality of relationship with the child. At this point the young child is helpless against the influence of the members of his family. He has had too little experience separate from theirs to question their opinions or to have a judgment of his own. He has no sense of right or wrong apart from theirs.<sup>3</sup>

Although early in life the infant appears passive in his relationships with those about him, within the first few months it is apparent that what the child does has an effect on the response that others make to him. He gradually develops ability to influence his environment. He cries and mother responds; he drops his rattle, and it is returned to him. On the other hand, his attempts to exert influence on his environment may meet

<sup>1</sup> Breckenridge and Vincent, op. cit., p. 452.

<sup>2</sup> Margaret Ribble, The Rights of Infants, (New York: Columbia University Press, 1943), p. 101.

<sup>3</sup> Breckenridge and Vincent, loc. cit.

with failure. If the individual is not able to manipulate parts of his environment or has no one with whom to interact, he does not feel able to produce effects on the world.

Gradually parents begin to make demands on the child as they attempt to help him adjust to the larger world for the culture gives little leeway in the unrestrained expression of inherent drives. Allison Davis stresses the importance of the child's early training experiences:

The child faces the most difficult....training in his first five or six years. In trying to learn....and in reacting emotionally to the parents who are trying to teach him, the child develops or learns many, if not in fact most, of his basic personality traits.<sup>1</sup>

As the child faces his training tasks, his parents reflect to him their appraisal of him as a person. Witenberg and his associates discuss this interaction in relation to self concept:

Late in infancy the training for socialization is begun, and for the first time the infant becomes aware of his appraisal of himself by his parents....He begins to organize himself in terms of such reflected appraisals. Impulses in himself which call forth anxiety in his parents, and hence in himself, are organized into a concept of himself which he personalizes as "bad-me," while those impulses which do not result in anxiety are organized into a concept of "good-me."<sup>2</sup>

As the child learns the nature of his world, he begins to anticipate its responses to him: friendly, supporting, and helpful; unfriendly, harsh, and threatening; or inconsistent. The last named is the least desirable. "Inconsistency from the parent may lead the child to the conclusion that the social world is unpredictable."<sup>3</sup> When this happens the child has

<sup>1</sup> Allison W. Davis, "How Your Child Gets His Personality," Hygeia, 26:4 (April, 1948), p. 289.

<sup>2</sup> Earl G. Witenberg, Janet Mac Kenzie Rioch, Milton Mazer, "The Interpersonal and Cultural Approaches," in American Handbook of Psychiatry, ed. Silvano Arieti, (New York: Basic Books Inc., Publishers, 1959), p. 1420.

<sup>3</sup> Bills, op. cit., p. 25.



difficulty developing significant generalizations, and his reaction to subsequent situations can only in terms of his own immediate needs. The child comes to estimate his worth by the quality of the treatment accorded him by others, and he begins to learn his status which is granted by others and affirmed by their daily attitude toward him. Young refers to Cooley's term, the looking glass self, the self reflecting the manner in which the people surrounding the child treat him.<sup>1</sup>

Out of the child's concept of the nature of the world, there grows a feeling of being (or not being) loved and valued, a feeling or security (or lack of it). At the same time he is learning that he can (or cannot) influence others, that he is (or is not) successful in manipulating situations and making an impact on the world, or that he has a feeling of adequacy (or lack of it). Adequacy is a function of how effective the individual feels he is in exerting an influence on his environment. While security grows out of sensations and the quality of feelings in his accumulated experiences connected with nurturing, adequacy grows out of situations in which an individual uses others to gain his purposes. Therefore, the child's feelings of security and adequacy grow out of the quality of his interpersonal relations.

In the process of the development of relationships with others, the child tests to determine what kinds of actions on his part produce the best results. This testing continues through much of life as he moves from strong family dependency into successive stages of relationships: relating to school chums and playmates, developing heterosexual relationships and evidencing less dependency on adults, and setting forth as an adult responsi-

<sup>1</sup> Young, op. cit., p. 167.

ble for his own life.<sup>1</sup> At each developmental stage the way the child relates to people is modified, but, although relationships are not irrevocably determined by early experiences, there is a strong tendency in a new situation to fall back on the well tried pattern that he worked out early in life and which became so much a part of his appraisal of himself and his world.

The peer group arises out of a combination of physiological, social, and psychological forces and serves as a major teaching agency for conveying values and teaching skills, knowledges, and roles.<sup>2</sup> Here the child can learn physical and social skills, group-centered roles, and such values as responsibility, cooperation, and recognition of the rights of others.<sup>3</sup> The peer group provides a haven during the years that the child, who still needs the security, protection, and guidance of the home, is taking steps toward increased self direction. It serves as a testing ground for the exploration of the meaning of the adult world.

Physical handicap and interpersonal relationships. Each child, physically handicapped or non-handicapped, has the same fundamental needs, and for each child problems arise when these needs are not met. Denhoff generalizes concerning the impact of parents on the growth of exceptional children: "...physical handicap alone has never been a deterrent to normal adjustment. Emotionally healthy families have happy and well adjusted exceptional

<sup>1</sup> Growing up in an Anxious Age, 1952 Yearbook of the Association for Supervision and Curriculum Development, (Washington, D.C.: National Education Association), p. 196.

<sup>2</sup> Ira J. Gordan, The Teacher as a Guidance Worker, (New York: Harper Brothers, 1956), p. 135.

<sup>3</sup> J. H. S. Bossard, The Sociology of Child Development, (New York: Harper and Brothers, 1948), p. 502.

children."<sup>1</sup> Barker supports this view: "Some parents are able to accept defective children for what they are, neither rejecting them nor compulsively protecting them."<sup>2</sup> Kolb refers to the period of the child's life when he is exploring and perceiving the body, experiences that are related to the beginnings of self-awareness, and he emphasizes the importance of the developmental and sensory influences in the evolving body image and the significance of the socialization experiences of the individual:

The attitudes of parents impart an indelible impression on the child's concept of himself, his body, and its function. Depending on the experience with the parents, the body and body parts may be conceived as good or bad, pleasing or repulsive, clean or dirty, loved or disliked.<sup>3</sup>

Certain aspects of body development tend to be prized among some families. Strong limbs and muscles are valued among boys and beauty among girls. Tryon's study of boys and girls, ages 12 to 15, illustrates that appearance and physical skills are valued by the peer group.<sup>4</sup> Not only does the individual look upon his body as do the significant people, but he derives perceptions, comparisons, and identifications with the bodies of other persons.<sup>5</sup>

<sup>1</sup> Eric Denhoff, "The Impact of Parents on the Growth of Exceptional Children," Exceptional Children, 26:5 (January, 1960) p. 273.

<sup>2</sup> Barker, loc. cit.

<sup>3</sup> Lawrence C. Kolb, "Disturbances of the Body-Image," in American Handbook of Psychiatry, ed. Silvano Arieti, (New York: Basic Books, Inc. Publishers, 1959) p. 753.

<sup>4</sup> Carolyn M. Tryon, "Evaluations of Adolescent Personality by Adolescents," in Child Behavior and Development, ed. R. Barker, J. Kounin, and H. Wright, (New York: McGraw-Hill Book Company, 1943), pp. 545-566.

<sup>5</sup> Kolb, loc. cit.

Although the generalizations noted above apply to children who have and do not have physical handicaps, it must be noted that the boys and girls with physical handicaps are often placed in situations which create additional problems for them. For example, Kolb observes that many mothers of deformed children have mixed feelings of humiliation, sadness, guilt, or depression.<sup>1</sup> Powers discusses mother-child relationships involving physically handicapped children:

The child is the product of the mother's body and conceived as an extension of the mother. Thus when the child of this mother is physically impaired, it is as if the injury occurred to the mother herself.<sup>2</sup>

Barker suggests that the burdens of time and money in some homes and possible social disapproval are factors that can negatively influence the child-parent relationship:

The parent may feel guilty, resentful, or socially stigmatized for having produced a defective child, and this may cause him to push the child aside. Or, the parent....may do everything in his power to recompensate the child for his misfortune. Both of these reactions are unfortunate for they frustrate the child's ego and social status needs.<sup>3</sup>

Shere's twin studies, in which one of each pair had cerebral palsy, support the ideas noted above.<sup>4</sup> Studies by Gates,<sup>5</sup> Abrams,<sup>6</sup> and Klapper

<sup>1</sup> Ibid, p. 755.

<sup>2</sup> Ann N. Powers, "Mother-Child Relationships in the Rehabilitation of the Physically Disabled," Social Casework, 32:6 (June, 1951), p. 262.

<sup>3</sup> Barker, loc. cit.

<sup>4</sup> M. O. Shere, "An Evaluation of the Social and Emotional Development of the Cerebral Palsied Twin," (unpublished Doctor's dissertation, College of Education, University of Illinois, 1954), reported in Barker, Wright, Meyer-son and Genich, op. cit., pp. 75-76.

<sup>5</sup> Mary F. Gates, "A Comparative Study of Some Problems of Social and Emotional Adjustment of Crippled and Non-Crippled Girls and Boys," Journal of Genetic Psychology, 68:2 (June, 1946), pp. 219-244.

<sup>6</sup> Dorothy Frances Abrams, "Comparison of Dominant Personality Tendencies as shown by California Test of Personality of Selected Cerebral Palsied and Selected Physically Normal Children," (unpublished Doctor's dissertation, New York University, 1956), pp. 1-202.



and Werner,<sup>1</sup> and Bice<sup>2</sup> and others point to the conclusion that the personality differences between the orthopedically handicapped and non-handicapped children stem from relationships with the parents rather than from factors inherent within the handicaps.

Two studies by Sommers involving blind adolescents revealed prevalent parental attitudes toward blindness: it was a symbol of punishment; it was suggestive of social disease; and it carried feelings of guilt and personal disgrace for the parents. Where parents had "accepted" their blind children, more often it was a matter of having overcome such negative reactions. The blind subjects felt that they did not have as good a time at home as their brothers and sisters. A smaller proportion of the blind felt that they were less favored than other children in the family, and a still smaller proportion thought that other children in the family perceived them as being favored. The blind subjects indicated that the experiences they missed the most were social activities and contacts with the seeing.<sup>3</sup>

In families where the mother rejects a deformed child, the siblings may provide support and friendship to the handicapped one, or they may show resentment for the extra consideration the handicapped child requires and for their own exploitation in personal care. Kolb found that mothers and siblings were less rejecting of children who were accidentally deformed, and mothers tended to feel more guilty, resentful, and hostile when the child's

<sup>1</sup> Z.S. Klapper and H. Werner, "Developmental Deviations in Brain-Injured Cerebral Palsied Members of Pairs of Identical Twins," Quarterly Journal of Child Behavior, 2 (1950), pp. 288-313.

<sup>2</sup> Harry Bice, "Some Factors that Contribute to the Concept of Self in the Child with Cerebral Palsy," Mental Hygiene, 38:1 (January, 1954) pp. 120-131.

<sup>3</sup> Roger G. Barker, Beatrice A. Wright, Lee Meyerson, Mollie Gonich, Adjustment to Physical Handicap and Illness: A Survey of the Social Psychology of Physique and Disability, (New York: Social Science Research Council, 1953), pp. 292-294.

handicap was congenital.<sup>1</sup>

Cruickshank and Raus recognize another factor that can disturb the quality of interpersonal relationships when they hypothesize that the greater the severity of a handicap visible to others, the greater the influence on the child's relationships. Society reacts to a visible handicap by tending to set apart a child such as the cerebral palsied child.<sup>2</sup> Kammerer in his study of children hospitalized with scoliosis and osteomyelitis, concluded that the degree of impairment and cosmetic appearance were more significant to the nature of interpersonal relationships than the etiology of the disorder.<sup>3</sup> On the other hand, Miller reported the results of her study of "mildly" and "severely" handicapped children with severe behavior problems in which she concluded that the mildly handicapped children had more serious problems as a result of disturbed parent-child relationships than did the severely handicapped.<sup>4</sup> Although Miller's result may appear contradictory to those of Cruickshank and Bice and Kammerer, it is supported by Barker who believes that less obvious defects involve a greater degree of marginality and fluctuation, making adjustment more difficult.<sup>5</sup>

<sup>1</sup> Kolb, op. cit., p. 756.

<sup>2</sup> William M. Cruickshank and George M. Raus, Cerebral Palsy, (Syracuse, New York: Syracuse University Press, 1955), p. 120.

<sup>3</sup> R. C. Kammerer, "An Exploratory Psychological Study of Crippled Children," Psychological Record, 4 (1940), pp. 47-100.

<sup>4</sup> Elsa R. Miller, "Cerebral Palsied Children and Their Parents," Exceptional Children, 24:7 (March, 1958) pp. 298, 302-305.

<sup>5</sup> Barker, op. cit., p. 37



It has been noted that peer group relations are significant for the growing child and that physical handicaps tend to hinder normal play outlets, denying the child full participation in the peer group activities. Studies of the social status of handicapped children have been made. A study in New York City indicated that children with cardiac problems had few friends and tended not to engage in organized play activities. Orthopedically handicapped children felt a need to participate with physically non-handicapped children, and although the handicapped group appeared to be normal in social outlook and experience, when their activities were evaluated they were frequently found to be solitary in nature. "...loneliness was a real problem about which many children felt sensitive and tended to protect themselves by denying the problem." The children with cerebral palsy were especially isolated.<sup>1</sup>

Force's investigation of the social status of physically handicapped children in schools in which the handicapped and non-handicapped were educated together revealed that the physically handicapped generally were not as well accepted as were the non-handicapped:

Few physically handicapped children have enough positive assets to offset completely the negative effect of being labelled as handicapped by normal peers. The individual physically handicapped child who is highly accepted....manifests many socially desirable traits....The problem of a status and acceptance for the physically handicapped is one that exists for those who are as young as six years.<sup>2</sup>

Previous reference has been made to the conclusion of Sommers that blind

<sup>1</sup> J. Wayne Wrightstone, Joseph Justman, and Sue Moskowitz, The Child with Orthopedic Limitations, (New York: New York City Board of Education, Bureau of Educational Research, 1954), p. 86.

<sup>2</sup> Pewey G. Force, "Social Status of Physically Handicapped Children," Exceptional Children, 23:3 (December, 1956) pp. 104-107, 132.

children placed social contacts foremost in terms of experiences they missed as a result of their handicap.<sup>1</sup> Elser investigated the social position of hearing handicapped children in regular classes, grades 3 to 7. Although there were 9 hearing children who were more rejected than the 45 handicapped children, the data revealed that the handicapped students as a group were not as well accepted as the hearing children.<sup>2</sup> No studies have been located in which handicapped children as a group achieved social status equal or superior to that of non-handicapped children.

Definition of roles. Identifications with significant people provide opportunities for self expansion. As the child becomes aware of others about him and gains some independence in activity, he begins to share their experiences and act out roles by imitating these persons -- their activities, intonations, and gestures. "Thus life moves on day by day, the child playing one role after another, seeing himself after the manner in which others have reacted to him."<sup>3</sup> The individual does not clearly differentiate who he is or recognize his worth or the worth of another until he has learned to do so through experience. As the attitudes and responses of others are taken over and associated with his responses, the child becomes able to call out in himself the attitudes and responses which are called out in him by others when they respond to him. Gradually the child comes to play a wide range of roles, some actual and some imaginary, related to

<sup>1</sup> Barker, Wright, Meyerson, Gonich, op. cit., p. 279.

<sup>2</sup> Robert R. Elser, "The Social Position of Hearing Handicapped Children in the Regular Grades," Exceptional Children, 25:7 (March, 1959), pp. 305, 309.

<sup>3</sup> Cole, op. cit., p. 321.

his place in the family, school, or play group. A generalized and somewhat integrated pattern of the role of the individual emerges, a role position from which he can perceive events and actions.

The child selects those roles in life which seem to him appropriate in terms of the goals and techniques which he has differentiated and the kind of person he feels himself to be in a specific situation.<sup>1</sup> At the same time, society exerts pressures on the child that imply the knowledges, competencies, behaviors, attitudes, and aspirations expected of him. As roles are defined by the individual, they influence behavior. Coutu sees roles as "highly probable behaviors," as "forms of readiness" influencing the selection of specific responses: "Our social roles must necessarily bias our judgments, select our needs, sensitize us to some stimuli, and anaesthetize us to other stimuli in our social fields."<sup>2</sup>

Although the behavior of the individual is influenced by what others expect of him, by the roles and the status of the roles laid down by those around him, the child's behavior is more than a mere duplication of the roles assumed from others. It is rather a result of the whole interactive process, "the self as actor."<sup>3</sup> With increased psychological maturity and with a broader experiential background, the child has less need to depend on reflected appraisal and introjection. Gradually he perceives himself; a frame of reference is created; and other perceptions tend to occur within

<sup>1</sup> Combs and Snygg, op. cit., pp. 155-156.

<sup>2</sup> Walter Coutu, Emergent Human Nature, A Symbolic Field Interpretation, (New York: Alfred A. Knoff, 1949), p. 123.

<sup>3</sup> Kimball Young, Personality Problems of Adjustment, (New York: F. S. Crofts Company, 1947), p. 175.

this frame of reference.

Boys and girls with physical handicaps define their roles by the same processes as the non-handicapped. However, children with handicaps who are denied opportunities for verbal communication, who are unable to observe the world about them due to impaired vision, or who lack independence to explore the community freely have less opportunities for seeking models, making identifications, and assuming a variety of roles, processes of great importance in self development.<sup>1</sup>

Development of language. "True language" emerges slowly. Through gestures and then through words the child learns self expression and interpretation. Before long others label his behavior for him through gestures and words. As the child talks to himself in the way others have talked to him, he learns the words that are symbols of his identification with the various roles he acquires, both the imaginary ones and those gained in his contacts with the family.

It is not until the individual can communicate with others through language symbols, which arouse in him the same responses that they arouse in other people, that he is able to take on the roles of others in the fullest sense. Of all the means of communication, Mead sees the vocal gesture as the form of communication that can evoke from another the same response it calls forth in the speaker.<sup>2</sup> Coutu emphasizes the importance of an individual's anticipating the responses of another person to his own

<sup>1</sup> Gordon, op. cit., pp. 181-183.

<sup>2</sup> G. H. Mead, Mind, Self, and Society, (Chicago: University of Chicago Press, 1934), p. 72.

<sup>3</sup> Coutu, op. cit., p. 264.

speech:

When we anticipate another's response to our words in the speed of conversation, we perform one of the great achievements of Man....We respond covertly, to our own words before he gets them, and this gives us the meaning of what we are saying to him. We assume that our words will affect him in the same way they have affected us, with some allowance for personal differences....We have run our own words through ourselves and we assume that what they did for us they will also do to him.<sup>1</sup>

Thus, development of symbolization, especially verbal symbolization, has been related to the emergence of self.

Acquisition of language facilitates the differentiation of the self and the field.<sup>2</sup> Much of the self concept of the child has its basis in what others reflect to him; he symbolizes this reflection about himself; these symbols then become cues to self development and behavior. As the individual organizes the sensory data in the environment in terms of his past experience and the present situation, he perceives himself and he perceives the world. It is impossible to have full perception devoid of symbolic content. Word selection tests give indication that language is richest for the individual in those areas which relate to what he has symbolized about himself.<sup>3</sup> In addition, the development of language broadens the base of experience and enables the individual to symbolize, manipulate ideas, differentiate problems, and understand more efficiently. Language permits "inner conversations" or thought and provides a means of handling abstractions of concrete experiences or concepts.

<sup>1</sup> Coutu, op. cit., p. 264.

<sup>2</sup> Combs and Snygg, op. cit., pp. 84, 133-134.

<sup>3</sup> Ittelson and Cantril, op. cit., p. 19

Language permits some insight into the perceptual field of another individual. Rogers states that the more the other person's experiences are available to consciousness, the more it is possible for him to convey a picture of the field. The more freely he can express himself, the more adequate will be his communication of the field. However, the meaning that a situation has for him may also be revealed indirectly through the tone of his voice, the gesture that he uses, and the posture that he assumes.<sup>1</sup>

The sharing of ideas remains a great problem in human interaction. In themselves words have no meanings; meanings are ascribed in terms of the perceptions of the individual. Where meanings differ, reactions differ. Although society gives certain specific meanings to many words, some words mean different things to different people. Another problem exists when the vocabularies of many people are too limited to express adequately the full richness of their experience. In addition, because personal meanings are private, they are not often brought into the open because of convention or fear of reprisal. Although communication is so necessary in human relations, a full and accurate report is not always possible.<sup>2, 3</sup>

Individuals deaf from early life are confronted with the difficult problem of acquiring the language of their culture without being able to

<sup>1</sup> Carl R. Rogers, Client-Centered Therapy, (New York: Houghton Mifflin Company, 1951), p. 492.

<sup>2</sup> Combs and Snygg, op. cit., pp. 440-441.

<sup>3</sup> Stephen Corey, A. W. Foshay, Gordon Mackenzie, "Instructional Leadership and the Perceptions of the Individual Involved," Bulletin of the National Association of Secondary School Principals, 35:181 (November, 1951), p. 84.



hear it.<sup>1</sup> Not only does the deaf baby not hear the words spoken by his mother, but he is denied the inflectional meanings which are often of greater significance. Meyerson considers the deprivations which young deaf children face:

They miss the constant flow of auditory language in which the normally hearing child is immersed. They may also be deprived of verbal play and other kinds of warm social contact with adults in their environments. As they grow older they learn relatively little until they begin school. Then they must first learn socially approved means of communication before they learn other things.<sup>2</sup>

Because identification with significant adults and peers, a basic aspect of personality development, is fundamentally related to language, hearing impaired children may have problems in the area of human relations.

Frisina notes that the deaf child who is a good lip-reader may learn to see language as the hearing child hears it and may develop adequate language for use. However, in attempting to reach these goals the deaf child faces a number of problems. Language is rich in abstract possibilities permitting expression of many kinds of possible relations. Acquiring language is difficult for the child whose time and relational thinking is disturbed; who has difficulty with word order and lacks insight into the abstract value of such structure words as: between, as, to, because, often, the, a, though, by; and lacks the sentence melody which rhythmically groups words and structures the whole sentence.<sup>3</sup>

Isolation and educational handicap can result from hearing loss as the

<sup>1</sup> Myklebust, op. cit., p. 116

<sup>2</sup> Lee Meyerson, "A Psychology of Impaired Hearing," in Psychology of Exceptional Children and Youth, ed. by William M. Cruickshank, (Englewood Cliffs, New Jersey: Prentice-Hall, Inc., 1955), pp. 120-183.

<sup>3</sup> D. Robert Frisina, "Some Problems Confronting Children with Deafness," Exceptional Children, 26:2 (October, 1959), pp. 94-97.

child is deprived of the innumerable ways in which audition supplies information regarding the environment and is denied a means of monitoring his own thoughts and feelings.<sup>1</sup> DiCarlo and Amster explain that children with arrested speech development give the appearance of pseudo-delayed mentality, are often disturbed in their problem-solving behavior, and tend to operate in a highly restricted environment which may precipitate behavioral rigidity and perseveration.<sup>2</sup>

4. The value system emerges in the process of self development and becomes a frame of reference for evaluating subsequent experiences. The importance, esteem, or price that an individual places on an idea, object, person, or activity is the value that he assigns to it. Values serve to differentiate and to order the environment. They are the rules of conduct by which men live, by which they direct their behavior, and from which they derive their hopes. Values have been defined in various ways. One classification would assign value to the following: body, property, authority, affiliation, knowledge, aesthetic form, and ideology.<sup>3</sup> Broudy differentiates the following areas: economics; health and body aspects; recreational; social; moral and aesthetic; intellectual; and religious.<sup>4</sup>

<sup>1</sup> Myklebust, op. cit., pp. 116-117.

<sup>2</sup> Louis DiCarlo and Walter W. Amster, "Hearing and Speech Problems Among Cerebral Palsied Children," in Cerebral Palsy, ed. William Cruickshank and George M. Raus, (Syracuse, New York: Syracuse University Press, 1955), p. 155.

<sup>3</sup> Calvin S. Hall, and Gardner Lindsay, Theories of Personality, (New York: John Wiley and Sons, 1957), p. 183.

<sup>4</sup> Harry S. Broudy, Building a Philosophy of Education, (New York: Prentice Hall, Inc., 1954), p. 86.

An individual will aspire to those aspects of the environment which he perceives as significant in contributing to the maintenance and enhancement of the self concept. Interests, attitudes, and goals are related to values. The interests that develop are the conditioned stimuli pursued because of their relation to that which is valued. Attitudes or predispositions to respond in certain ways express inner values. That which the individual seeks to achieve as need satisfaction are his goals and values, with goals being the more specific aspects of behavior. When goals and values fail to provide feelings of adequacy, new interests arise as expressions of shifting patterns of goals and values.<sup>1</sup>

Development of values. The infant is born into an existing society with its culture and subcultures and lives in close relationship with members of his family who, in turn, are members of that society and guardians of its values. The newborn does not possess judgment or bases for evaluation, but for him the valuing process begins as the organism, seeking to maintain physiological equilibrium, has experiences, each with its accompanying feeling-tone -- warm or cold, soft or harsh, comforting or disquieting.

As the young child differentiates himself from his world, he places value on himself, an evaluation that reflects the appraisals of the significant people in his world. Other values gradually come to him for the child is sensitive to those about him and the meanings that situations have for them. Lecky writes, "...the child's weak ego, having originally no values of its own is readily adaptable...."<sup>2</sup> The persons with whom he makes

<sup>1</sup> Combs and Snygg, op. cit., p. 111.

<sup>2</sup> Prescott Lecky, "The Personality," in The Self, ed. Clark E. Moustakas, (New York: Harper and Brothers, Publishers, 1952), p. 93.

strong identification provide the child with views and opinions and with attitudes and feelings about events, situations, and people which he takes over as his own. As a result he comes to perceive that which is "good" or "bad," "desirable" or "undesirable" in terms of the attitudes of others and the labels they attach to these aspects of the environment. "His parent's religion becomes his religion, their standards become his standards. In this way differences are eliminated and the bonds of relationship strengthened by increasing the 'consciousness of kind.'"<sup>1</sup> Through identification and through role playing, the child is his parent and acts and reacts as he feels his parent does. In this manner, the ideas that the child has of himself, his parents, and his world are brought into a more unified relationship. Values are developed in several stages. Engbretson identifies three stages:

Identification with parents and family, with full acceptance of extrinsic values

Identification with teachers and peers, with some questioning of previous values and the development of more intrinsic values

Identification with an increasing number of models as a result of first-hand and vicarious experiences leading to further questioning, gradual refinement, and individual clarification of values.<sup>2</sup>

If there are people close to the child with whom he can identify, the first stage may present no problem, for generally values within a family group tend to be consistent. However, in the second stage, as the child moves into the broader environment, he may become confused if the values

<sup>1</sup> Loc. cit.

<sup>2</sup> William E. Engbretson, "Values of Children and How They are Developed," Childhood Education, 35:6 (February, 1959), pp. 262, 263.

of his teachers and his classmates are different from those that he brings to school. This confusion may become increasingly significant when the school fails to meet the social and academic needs of a child whose family standards and values differ from those of the school in such vital areas as the following: attitude toward political and economic change, government relations, child-rearing practices, language development, and school achievement.<sup>1</sup>

Warner, Meeker, and Eels discuss the significance of differences in cultural backgrounds from the point of view of the school:

The differences in values, concerns, and conduct created by differences in socio-economic status or by ethnic and racial backgrounds are admittedly creating a distance between school curriculum and the social learning....the school curriculum fails to touch a large proportion of pupils because the selection of materials and of motivating devices fail to meet their life realities.<sup>2</sup>

The feelings and attitudes that a child brings to school color his interpretation and use of ideas and may even block communication.<sup>3</sup>

Diversities in motivation and behavior stemming from differences in cultural values have implications for instruction. Value development can be an integral part of the learning process, a responsibility which schools share with the home, organized religion, and community agencies. There is no "one" set of values for the school to teach, but it has responsibility to all children in two areas: (1) the guidance of students to develop attitudes and beliefs consistent with the fundamentals of democracy and

<sup>1</sup> Coutu, op. cit., p. 125

<sup>2</sup> Lloyd Warner, Maxwell Meeker, and Kenneth Eels, Social Class in America, (Chicago: Science Research Associates, 1949), p. 140.

<sup>3</sup> Hilda Taba, "New Tools for New Needs," Educational Leadership, 10:7 (April, 1953), p. 436.

(2) the opportunities for boys and girls to identify and clarify the values they hold and to see the implications of these values for social organization and action.<sup>1</sup>

During this second stage of value development in which peer groups and mass media of communication also exert influence, values are formed in a number of ways:

The satisfaction of physiological drives may continue to be important although other values may come to have greater significance, as in the case of the religious man who fasts or the mountain climber who faces physical hardship to reach his goal.

Satisfying emotional experiences and association of an object or situation with the love and approval of a significant person continue to be significant as the child broadens his base of interpersonal relationships.

The nature of the experiences and materials provided or denied the child indicate to him that which is valued or deprecated by others.

Attempts are made by persons in authority to inculcate values. Rewards and punishments are used. What is rewarded and punished as well as the nature of the reward or punishment are significant.

The techniques used to develop values are significant. To be most effective instruction must be individual in nature with an emphasis on participation.<sup>2, 3, 4</sup>

Values of subcultures are deep-seated and basic, and rapid change can

<sup>1</sup> Toward Better Teaching, 1949 Yearbook of the Association for Supervision and Curriculum Development, (Washington, D. C.: National Education Association), pp. 155-156.

<sup>2</sup> Toward Better Teaching, op. cit., pp. 160-183.

<sup>3</sup> Havighurst, op. cit., pp. 55-60.

<sup>4</sup> Gordon, op. cit., pp. 91-96.



produce drastic results. Spiegel and Bell studied families of psychiatric patients as compared to "well" families to investigate processes associated with pathological behaviors. It was discovered that both the "well" and "sick" families had role and value conflicts, but the "sick" families attempted to change a broader spectrum of values and to change these at a more rapid pace. The actual value conflicts were unrecognized or denied, but they were projected from one parent to another or on to the children, who were socialized in terms of the role conflicts existing in the family.<sup>1</sup>

The third stage in the development of values, the gradual refinement and clarification of values, is seen by Engbretson as the one in which the individual really sees himself as a person with reasoned values. Portney indicates that a number of conditions are necessary for self realization, among which is a hierarchy of values arising out of genuine conviction rather than compulsive conformity or defiance.<sup>2</sup> However, although an individual may reach a stage where he questions, refines, and clarifies his values, it is suggested that "no one is ever free from the effect of culture."<sup>3</sup>

Function of values. The individual seeks to achieve self realization through the goals and values he has differentiated as leading to that end. As he develops concepts about himself and his world, he values the experiences he perceives as enhancing, and he places negative value on those which

<sup>1</sup> John P. Spiegel and Norman W. Bell, "The Family of the Psychiatric Patient," in American Handbook of Psychiatry, ed. Silvano Arieti, (New York: Basic Books, Inc. Publishers, 1959), pp. 139-141.

<sup>2</sup> Isidore Portney, "The Anxiety States," in American Handbook of Psychiatry, ed. Silvano Arieti, (New York: Basic Books, Inc. Publishers, 1959), pp. 310-311.

<sup>3</sup> Combs and Snygg, op. cit., p. 96.

do not enhance or which threaten his self concept. He tends to see in each situation only that which serves his purpose, that which has meaning for him as he seeks to satisfy his basic need. Therefore, children direct their time and energy toward those activities which they consider important and consistent with their views of themselves and their world. When situations are viewed as unrelated to their goals or threatening to their self concepts, considerable energy may be used to avoid these situations.<sup>1</sup>

Values are significant in selecting, shaping, and ordering the perceptions of an individual and determining that which is "real" for him.<sup>2</sup> Projective tests illustrate this concept for they explore the individual's perceptual field and demonstrate the selective effect of goals and values on perception.<sup>3</sup> Goals aid the person in realizing his values for they are the behavioral "possibilities" in the situation. To achieve his goals, a person selects behavior consistent with his values.<sup>4</sup> Values, then, organize the cognitive and affective lives of the individual, assign meaning to experience, permit consistency in behavior, and facilitate a purposeful organization for the total being.

Lecky explains behavior by the "single principle of unity or self-consistency" in which he sees personality as a single organization of values, one value consistent with the other, and behavior as the effort to maintain

<sup>1</sup> Gordon, op. cit., p. 17

<sup>2</sup> Daniel Prescott, The Child in the Educative Process, (New York: McGraw-Hill Company, 1957), pp. 412-415.

<sup>3</sup> Combs and Snygg, op. cit., pp. 108-109.

<sup>4</sup> Prescott, loc. cit.

the consistency or unity of this value system. The center of the system, the core around which the system revolves, is the individual's valuation of himself. "The individual sees the world from his viewpoint, with himself as the center."<sup>1</sup> His organization of values into a single system is evidenced in the regularity of his behavior and in the standards he feels obliged to maintain.<sup>2</sup>

The value system has been likened to the rules of a game in which the regulations are internally consistent and binding. They give the individual purpose for unified action, knowledge of what to expect of others as well as how to conduct himself, and sense of what is fair and foul, desirable and undesirable. The system functions only to the degree that the rules are compatible, and when new rules are introduced that are in contrast with the old, confusion and conflict may result.

Values that are inconsistent are generally rejected. This process keeps the individual from having frequent need to make a radical reorganization of his system of values.<sup>3</sup> When all values do not mix amicably, the person is forced to make choices between them.<sup>4</sup> Lecky sees this resistance to conflicting and inconsistent values as natural and necessary to maintain

<sup>1</sup> Lecky, op. cit., p. 89.

<sup>2</sup> Ibid, pp. 90, 94.

<sup>3</sup> Lecky, loc. cit.

<sup>4</sup> Broudy, op. cit., p. 86.

organization and individuality. He notes that the individual would have no personality if he accepted all values very readily into his system.<sup>1</sup>

Gaining insight into the values of another person provides guide lines for understanding and even predicting his behavior. In turn, values can be understood, to some degree, through behavior. In his behavior the child gives clues to what is on his mind, what is worrying him, and what is important to him. He indicates what he believes to be the facts in the situation and reveals his sense of what is right, honest, fair, and worthwhile, the "rules" by which he orders his life. The degree to which his broad personal values are consistent with those held generally in his culture, the individual is judged to be acculturated, with social acceptance as his major reward.<sup>2</sup>

5. Individuals differ in the method of dealing with perceptions that are inconsistent with the self concept. As the individual strives for self realization, two interrelated processes are in operation: (1) perceptions and the resulting behavior operate to defend the present system, and (2) experiences are selected for acceptance into the self system that serve to achieve his goals. The seeking of self maintenance and self enhancement takes place in the world of people, objects, and situations, and this interaction with the environment constantly requires adjustments. A person must learn to accept such limitations as those of time, place, persons, opportunities, talent, and health. He does not adjust generally, once and for all, but he adjusts constantly to specific problems met at specific times under specific conditions. "Adjustment and development always occur

<sup>1</sup> Lecky, loc. cit.

<sup>2</sup> Arthur W. Foshay, Kenneth D. Wann, and Associates, Children's Social Values, (New York: Teachers College, Columbia University, 1952), pp. 37, 39.

In a given context, part of which consists of limitations within ourselves and obstacles about ourselves."<sup>1</sup>

In this process of adjustment the individual describes himself in terms of his feelings -- happy or unhappy, satisfied or dissatisfied -- depending on his perception of the degree to which his need is being satisfied and his movement toward his goals is recognized. Feelings are the medium by which a person expresses the personal meaning that a situation has for him.<sup>2</sup> What the child feels is an internal process going on in his private world.

Since feelings symbolize all of the perceptual field, they include emotions.<sup>3</sup> Prescott describes unpleasant emotions as being manifested when the individual's processes of realizing himself are blocked or threatened, and pleasant emotions are experienced when the individual is able to act freely in his movement toward the accomplishment of his goals.<sup>4</sup> The greater the personal reference of the situation, the greater is the level of intensity of the emotion, the greater the degree of change in the energy-releasing processes of the body in preparation for action, and the greater the degree of tension experienced. Therefore, the quality of emotion depends on what the situation means to the individual and how his behavior helps him move toward the realization of his goals.<sup>5</sup>

<sup>1</sup> Nathaniel Cantor, "Function and Focus in the Learning Process," in Readings for Educational Psychology, ed. William A. Fullagar, Hal G. Lewis, Carroll F. Gurnee, (New York: Thomas Y. Crowell Company, 1956), p. 447.

<sup>2</sup> Fostering Mental Health in Our Schools, 1950 Yearbook of the Association for Supervision and Curriculum Development, (Washington D. C.: National Education Association), p. 304.

<sup>3</sup> Combs and Snygg, op. cit., pp. 233-234.

<sup>4</sup> Prescott, op. cit., p. 394.

<sup>5</sup> Ibid, p. 399.

In the material to follow attention will be directed to situations in which an individual experiences threat and ways in which such situations can be handled.

Situations of threat. There is some degree of emotion connected with every human behavior. In many situations the emotion has an organizing, facilitating effect that tends to produce a feeling of well-being and enhancement. In other situations excitement, fear, or anger are evidenced when the person finds himself in situations which he cannot control. Maslow defines feelings of threat as those which arise "when we can no longer handle the situation, when the world is too much for us, when we are not masters of our fate, when we no longer have control over the world or ourselves...."<sup>1</sup>

Often situations of threat are those experiences which are perceived by the individual as inconsistent with his self concept. Psychological maladjustment develops when the organism denies to awareness certain experiences which subsequently are not symbolized and organized into the gestalt of the self concept. Anxiety develops out of feelings of threat causing the self to organize the energy resources of the body for defense in order to maintain the present self structure with the result that the organism becomes less able to expand and assimilate the inconsistent experience.

A number of factors that are significant in determining the degree of tension which the individual feels in a threatening situation are summarized below:

The degree of tension is roughly proportional to the perceived importance of the situation of the self.

<sup>1</sup> Maslow, op. cit., p. 160



The psychological immediacy of the event is significant. What enhances or threatens at the moment is perceived as more enhancing or threatening than that which is more distant in time or space.

The clarity with which a situation is differentiated by the individual as detrimental or enhancing to the phenomenal self affects the degree of tension.

The situation which the individual feels adequate to handle is not perceived as an emergency and is less frightening than that which seems beyond his control. In the latter situation tension is great and emotion tends to serve as a destructive rather than an enhancing force.<sup>1</sup>

Feelings of comfort and freedom from tension are experienced as psychological adjustment. The individual achieves adjustment when he accepts into the organized conscious concept of the self all his perceptions of his qualities, abilities, impulses, and attitudes as well as his perceptions of himself in relation to others. Rogers sees adjustment as an "internal affair" rather than a situation that depends on external "reality."<sup>2</sup>

The inadequate personality emerges from the interactions of the child and the world in which he lives. Feelings of inadequacy grow out of the failure of the child to meet the expectations of significant people and his doubt in his ability to meet life's demands. He experiences frustrations when he is a victim of inner conflicts, when there is inconsistency among his codes, attitudes, and goals. Frequently the inadequate person fails to achieve a feeling of oneness with others. Combs and Snygg and others see a low opinion of self strongly correlated with the inability to accept others.<sup>3</sup>

<sup>1</sup> Combs and Snygg, op. cit., pp. 229-231

<sup>2</sup> Carl R. Rogers, "Some Observations on the Organization of Personality," in Readings for Educational Psychology, ed. William A. Fullagar, Hal G. Lewis, Carroll F. Cumbee, (New York: Thomas Y. Crowell Company, 1956), pp. 286-302.

<sup>3</sup> Combs and Snygg, op. cit., p. 270.

Adjustment situations for the handicapped. Threat and the consequent defenses must be defined in terms of the individual and his life space. Therefore, the physically handicapped child faces the same problems of adjustment as does the non-handicapped child, but, in addition, he faces adjustive problems resulting when a physical handicap is inserted between a goal and the self desire to achieve the goal. It is important, then, to distinguish between emotional maldevelopment which is potential in all children and emotional disturbance which is the direct result of frustrations due to physical disability.<sup>1</sup>

The reflected appraisals of significant people influence the psychological behavior of the child and may present adjustive problems when the child is handicapped. When an individual lacks a tool required in his culture, others note his lack. If they devalue him for it, he may accept their judgment and devalue himself.<sup>2</sup>

Disabilities have psychological effects, not because the nature of the disabilities require certain behavior, but because disabilities may force the child into new psychological situations more frequently.<sup>3</sup> To explain the behavior of the physically handicapped, Meyerson borrows concepts from somatopsychology as developed by Kurt Lewin and applied to the physically handicapped by Roger, Barker, and others. He draws a distinction between the old or familiar psychological situation in the life space of an individual.

<sup>1</sup> William M. Cruickshank, "The Impact of Physical Disability on Social Adjustment," Journal of Social Issues, 4:4 (Fall, 1948), pp. 78-83.

<sup>2</sup> Meyerson, op. cit., p. 19

<sup>3</sup> Lee Meyerson, "Somatopsychology of Physical Disability," in Psychology of Exceptional Children and Youth, ed. William M. Cruickshank, (Englewood Cliffs, New Jersey: Prentice-Hall, Inc., 1955), pp. 41-42.

The old psychological situation is well structured; sub-regions are identified as desired or not desired; positive and negative goals are recognized, and the paths leading to them are recognized. The factors characterizing the new psychological situation are very different. The region is generally unstructured; the location of the goal is not clear, and the means of reaching it are not known; the position of the goal may appear to change as the individual's psychological position changes; an experience may carry both positive and negative feelings when the goal is attractive but the strangeness of the situation is repelling. The individual in a new psychological situation tends to engage in wandering, vacillating, and unstable trial-and-error behavior, is alert to small clues, and is easily influenced by peripheral stimuli. As a person's perception of the situation shifts, his behavior shifts.<sup>1</sup>

Physically disabled persons may face several kinds of new psychological situations. First, a situation may be new because it has never been experienced. Handicapped children may face new situations frequently when their psychological worlds are smaller and less well differentiated than the life space of non-handicapped children. Second, a situation may be new because the individual lacks a tool required by his culture and is hindered in structuring the new situation. For the physically handicapped child the same physical situation may be new each time he meets it. For example, the child with a severe vision handicap may be in a new psychological situation each time he walks around the block for there may be new obstacles that he cannot anticipate. A third type of new psychological situation may stem from the meanings that a disability has for others. The handicapped individual may not be able to anticipate when he will be pitied, helped,

<sup>1</sup> Ibid, pp. 37-39.

exhibited, or rejected in terms of what his disability means to another person. His social role may not be clear to him for the disabled person lives in a world that is frequently ambiguous both for himself and for others.<sup>1</sup>

Although, the concept of the "new psychological situation" is important in understanding the behavior of the physically disabled, the concept of overlapping psychological roles must also be considered. The disabled person lives in two psychological worlds -- the world of the non-disabled majority and the psychological world that his disability creates. Many activities are common to both worlds, but others are open only to the non-handicapped. Each handicapped individual plays overlapping roles requiring different but generally compatible behavior as he holds membership in different groups.

A disabled person is exposed frequently to new psychological situations that are directly related to his disability, and he may react in a number of ways: (1) try to avoid new situations, (2) attempt to develop the skills needed to reduce the newness, (3) try to develop a greater tolerance for frustration, and (4) seek to reduce the potency of some of his goals.<sup>2</sup> Barker notes that a possibility for adjustment lies in reducing marginality and newness but indicates that the degree of marginality varies strikingly with the nature of the physical defect:

Defects which are not as obvious as deafness, cardiac defects, and tuberculosis involve a much greater degree of marginality than those which are immediately apparent....defects which are established involve less marginality than those which continually fluctuate in severity.<sup>3</sup>

<sup>1</sup> Ibid, pp. 47-48.

<sup>2</sup> Loc. cit.

<sup>3</sup> Barker, op. cit., p. 37.



Conflict and maladjustment may occur when the individual rejects the roles open to him and seeks what is unattainable or relatively inaccessible. The handicapped person will be maladjusted to the extent that he denies his disabled role and places high value on situations requiring "normal" behavior and seeks entrance into regions that are partially or totally closed to him.<sup>1</sup> Myklebust emphasizes a problem that can arise when the handicapped deny their disabilities: "Regardless of their ability if they are ashamed of their disability, if they try to deny it, or to behave as if it did not exist, they divorce themselves from reality without gaining the general social acceptance they crave."<sup>2</sup> Meyerson emphasizes that it is unrealistic and unfair to create social situations in which deaf, blind, and crippled children are expected to behave as not-deaf, not-blind, and not-crippled and then belabor the disabled for their maladjustment.<sup>3</sup>

Methods of dealing with threat. When the self is threatened, it must act. Mechanisms of self defense offer temporary relief as they appear to reduce the incongruity between the individual's perception of a situation and his self concept. The self defenses have been called the "glasses" that are worn psychologically to bring the concept of self and "reality" closer. Perceptions which enhance the self concept may be sought while threatening perceptions may not be permitted to enter the phenomenal field, or they may not be allowed to come into clear figure.<sup>4</sup> Mc Ginnis's study,

<sup>1</sup> Meyerson, op. cit., p. 49.

<sup>2</sup> Myklebust, op. cit., p. 161.

<sup>3</sup> Meyerson, op. cit., p. 58.

<sup>4</sup> Combs and Snygg, op. cit., p. 268.

in which the galvanic skin response was used as an index of emotionality as neutral and emotionally toned words were flashed, indicated that perceptual defense involves avoidance of unpleasant or dangerous stimulus objects. Increased emotionality at the pre-recognition level revealed that the subjects discriminated a stimulus before it was fully perceived. Mc Ginnis concluded that the process of perceptual defense is designed to delay the greater anxiety that accompanies the recognition of the stimulus.<sup>1</sup>

Three categories of techniques for dealing with threatening situations can be identified. The following is a very brief summary of the discussion presented by Combs and Snygg:

The phenomenal self may be reorganized to include threatening perceptions. The adequate person can accept all the differentiations in his field. Because the self is defined in "positive" terms, "negative" perceptions are evaluated against the many "positive" experiences and, therefore, can be assimilated. The individual is open to adjustment and change. The reorganization of self that results permits new data to enter the field and provides a more realistic relation to the world.

Perceptions may be denied acceptance into the phenomenal field. A matter may be postponed, or a threatening perception may be suppressed or held to a lower order of differentiation. The threat is not eliminated, however. Because it is still in the phenomenal field, although not in clear figure, it continues to keep the organism in a state of tension. A high degree of attention to other matters may relieve the resulting anxiety temporarily.

Perceptions may be selected or modified to be consistent with the existing organization. The greater the feelings of inadequacy, the greater is the incidence of distortion. A person may rationalize by selecting perceptions in such a manner that they appear consistent with the concept of self. The individual may deny as he refuses to accept a threatening differentiation, or he may compensate as he seeks esteem in other areas that are not under threat. Identification with a strong personality or group may add the adequacy of others to one's perception of self. Exaggerated attempts to conform may relate to feelings of inadequacy. Regression may be tried as techniques that worked to make the individual feel adequate in the past are used.

<sup>1</sup> E. Mc Ginnis, "Emotionality and Perceptual Defense," in Outside Readings in Psychology, ed. Eugene L. Hartley, Herbert G. Birch, and Ruth E. Hartley, (New York: Thomas Y. Crowell Company, 1955), pp. 183-193.



Fantasy gives feelings of mastery. Although dangerous when the individual finds the world of fantasy more real than experience in the external world, this mechanism may enable the individual to punish himself through what appear to be "unpleasant" fantasies, to become the punisher rather than the punished, and thereby to seek enhancement.<sup>1</sup>

It has been noted that defensive behavior may reduce the awareness of threat, but it does not reduce the threat itself. Although everyone employs defensive mechanisms, danger may arise from overuse or unwise "choice." The person who is defensively organized may choose a course of action only to find that he cannot behave in the way that he selects because of his denial or distortion of some important data or clues.<sup>2</sup> When the individual interprets clues in his own way without regard for his surroundings, it might be said that he has left reality, but more accurately, since perception is reality, he has ceased to use available clues or uses them out of social context, and his perceptions have lost similarity to his surroundings.<sup>3</sup> Rogers discusses the extent to which defensive behavior is used:

....the extent to which the individual's perceptions of his abilities and relationships were incongruent with socially perceived reality would be a measure of his basic vulnerability. The extent to which he dimly perceives these incongruences and discrepancies is a measure of his internal tension and determines the amount of defensive behavior.<sup>4</sup>

According to Portnoy's definition, the neurotic personality suffers from

<sup>1</sup> Combs and Snygg, op. cit., pp. 271-284.

<sup>2</sup> Rogers, Client Centered Therapy, op. cit., p. 19

<sup>3</sup> Earl C. Kelly, Education for What is Real, (New York: Harper and Brothers, 1947) pp. 43-44.

<sup>4</sup> Rogers, Client Centered Therapy, op. cit., pp. 191-192.

disunity, inability to have a firm sense of identity as he becomes a stranger and enemy to himself. His system of values derives from his need for safety, a search for glory, or avoidance of struggle and pain.<sup>1</sup>

The child is in position to handle situations producing unpleasant emotions in mentally healthy ways if conditions prevail in which he can react effectively: (1) direct his energy into constructive avenues of winning approval, (2) develop empathy with one or more individuals who value him, (3) participate as a responsible and contributing member in group situations, (4) face facts and use the essential steps in reasoning analyze his life situation, and (5) clarify his values and, with accumulating experience, alter meanings when appropriate.<sup>2</sup>

6. The individual is able to reorganize his perceptual field and, thereby, change behavior. Behavior is a product of perception, and the direction of the behavior depends on the view that the behavior holds of the most appropriate action available to maintain and enhance the self. Perceptions are internal, are matters of personal meaning, and are not open to external manipulation. On the other hand, if learning is seen as change in behavior, and if behavior changes only after perceptions change, the process of the reorganization of the perceptual field has wide implications. Two aspects of the topic are discussed: the process of perceptual change and the implications for education.

Differentiation of new perceptions. The self concept has stability and seeks to maintain and enhance its present organization, but this stability

<sup>1</sup> Portnoy, op. cit., p. 311.

<sup>2</sup> Prescott, op. cit., pp. 409-413.

and tendency to resist change do not indicate rigidity in organization. To be adequate the human being, maintaining existence through successive periods in life, living in a changing world, and seeking self actualization, must adapt to change. In so doing, perceptions cannot remain static. Rogers states that perceptual changes are more often concerned with the self than the external world.<sup>1</sup> "The process of self differentiation never ceases."<sup>2</sup> As child and as adult, the individual constantly engages in the process of self discovery as he learns to see himself as others see him and interpret his behavior in terms of the values of his culture. At times the differentiatational process is more rapid than others.

Differentiations can arise as a result of traumatic shock which can change rapidly the self organization of the individual, or changes in the self concept may take place so slowly and so gradually that the individual may not be aware of the change.<sup>3, 4</sup> The nature of the situation and its meaning to the individual influence the manner and extent of perceptual change. Combs and Snygg outline several factors which serve to determine whether or not change in the perceptual self is likely to occur. A summary of their explanation appears below:

The place of the new concept in the individual's present self organi-

<sup>1</sup> Carl R. Rogers, "Some Observations on the Organization of Personality," in Readings for Educational Psychology, ed. William A. Fullagar, Hall G. Lewis, Carroll F. Cumbee, (New York: Thomas Y. Crowell Company, 1956), p. 287.

<sup>2</sup> Combs and Snygg, op. cit., p. 157.

<sup>3</sup> Ibid, pp. 159, 161-162.

<sup>4</sup> Rogers, Readings for Educational Psychology, op. cit., p. 298.

zation is significant. Not all aspects of self have equal value, and those of less importance to the person change more readily as a result of new experiences than do the more central or personal self concepts.

New concepts that satisfy the subject's need for enhancement are likely to be accepted into the self structure while those which appear to be threatening will probably be rejected. The absence of threat increases the mobility of the self concept, for change is most likely to occur in situations that do not force the individual to self defense.

The clarity of the experience is important. A vivid experience is more likely to result in change. Generally first-hand experiences are more effective in producing change than symbolic experiences.<sup>1</sup>

The self structure is generally open to enhancing perceptions, but when there is freedom from threat, it is possible for the self to consider hitherto rejected perceptions, to make new differentiations, and to re-integrate the self in such a way as to include them. The new data which is available to the individual permits him to deal with the world more accurately and with greater realism. A reservoir of positive perceptions and the ability to accept new perceptions enables him to launch into new areas of experience. Because he feels fundamentally secure, he can reach out and extend himself to the limit.<sup>2, 3</sup>

Implications for education. Each student takes to the schoolroom certain potentials, feelings, attitudes, goals, and values which influence what he can perceive as significant and meaningful to him. He reacts to teachers, classmates, and the emotional tone of the classroom in terms of

<sup>1</sup> Combs and Snygg, op. cit., pp. 163-164.

<sup>2</sup> Rogers, Readings for Educational Psychology, op. cit., p. 297.

<sup>3</sup> Combs and Snygg, op. cit., pp. 252-253, 272.

the perceptions which he has developed concerning himself and his world of people and situations. "He takes out of the situation -- i.e., he learns -- what he himself experiences."<sup>1</sup>

The school that seeks to deal effectively with behavior must consider what children think of themselves, aid them to perceive themselves and their world in satisfying ways, and, thereby, achieve behavior that is appropriate for them and accepted by others. To help the child develop concepts for effective living, education must focus on changes of the child's self perceptions "in relation to his life experiences rather than upon producing stereotyped and identical behavioral responses in conformity with standardized norms."<sup>2</sup> The self concept, so basic to behavior, is a function of experience. Other than the family, the school has a more profound effect on the self perceptions of boys and girls than any other social agency. Education must provide students with experiences that help them to see themselves as liked, wanted, able, and responsible and, through opportunities for self actualization, enable them to become contributing group members, curious about the world around them, and concerned for the welfare of Men.

Educators must be concerned with planning experiences for children that help them make adequate perceptions, see things in new ways, and be more open to their experiences -- past, present, and future.

<sup>1</sup>  
A. Harry Passon, "Individualization of Instruction," (Mimeographed, undated), p. 2.

<sup>2</sup>  
Hugh V. Perkins, "Changing Perceptions of Self," Childhood Education, 34:2 (October, 1957), p. 84.

Bills,<sup>1</sup> Combs and Snygg,<sup>2</sup> Morgan,<sup>3</sup> and Rogers,<sup>4</sup> and Waetjen<sup>5, 6</sup> are among the authors who have developed this idea in recent contributions to the literature. Although it is not appropriate, at this point, to attempt to outline a learning theory, a few essential ideas serve to indicate ways in which personality theory and perceptual psychology can serve education.

Education seeks to help the child gain knowledge and, as a result of this knowledge, behave effectively, think critically, contribute freely to the group welfare, and live creatively. Such goals can be realized only as the child is able to escape the past experiences that prohibit him from exploring the meanings of new events and ideas and become sufficiently free and open to see and internalize appropriate new experiences. From all the opportunities for new experiences open to him, he will select the ideas, attitudes, and feelings that hold personal meaning for him. It is only when subject matter takes on meaning for the child as he seeks self realization that it is perceived and experienced and can affect behavior. An

<sup>1</sup>  
Robert E. Bills, "Believing and Behaving: Perception and Learning," Learning More About Learning, ed. Alexander Frazier, (Washington, D. C.: Association for Supervision and Curriculum Development, 1959), p. 57.

<sup>2</sup>  
Combs and Snygg, op. cit., 312-315, 365, 375-380, 383-384, 388.

<sup>3</sup>  
Gerth Morgan, "With Focus on Self -- the Teacher," Baltimore Bulletin of Education, 37:3 (April, 1960), pp. 9-16.

<sup>4</sup>  
Carl R. Rogers, "Significant Learning: in Therapy and Education," Educational Leadership, 16:4 (January, 1959), pp. 232-242.

<sup>5</sup>  
Walter Waetjen, "Facts About Learning," Baltimore Bulletin of Education, 38:2 (December, 1960), pp. 22-28.

<sup>6</sup>  
Walter Waetjen, Human Variability and Learning, (Washington, D. C.: Association for Supervision and Curriculum Development, 1961), pp. 1-88.



educational program based on this philosophy is concerned with the inner organization of the student, recognizes the selective influence of self perception and past experience on current perceptions, and provides the environment in which he can be self motivating and move toward self actualization.

Learning occurs more readily when it is problem-oriented, and the problems are perceived by the learners to be important and relevant to their needs. In this setting the teacher, recognizing the significance of the needs, attitudes, and values of her students, can guide them to re-examine and clarify those which they perceive to be important. Learning, then, is a personal process for each individual, because the learner determines what can be perceived and the directions in which his energy will be channeled.

The teacher is significant in this learning process. She should be one who can accept her own feelings and, therefore, not have need to be defensively oriented. She can accept the student and understand his feelings. Active valuing of the learner enables her to establish a relationship of warmth, support, and trust in which he has opportunities to develop more adequate perceptions.

The teacher believes that the urge to grow is basic, that all children want to learn for she has faith in the self actualizing tendency of her students. She knows that perception is an internal and a self-selective process, not open to direct external manipulation. Therefore, she makes available a wide variety of resources from which the student can select those which are need-relevant and a classroom environment rich in opportunities for exploration, discovery, and extension of experiences. She does not assume the role of the authority for this would limit the learning of the child to the knowledge and skills that she possesses. Instead,

she serves to influence behavior by facilitating, assisting, and guiding children. Personal liabilities are discovered under conditions that are relatively free from threat in which the student feels sufficiently secure and adequate to recognize his weaknesses and handle them appropriately.

The child can move toward self realization as he comes to believe in his own capacities to learn, lives in a classroom in which he is actively valued, and experiences maximum challenge and minimum threat in his exploration of new ideas.

### Summary

This chapter has served to discuss the rationale for this study of the self reports of selected physically handicapped and non-handicapped students. A theory of the role of the self concept in behavior was formulated under six constructs, each of which was discussed and supported by evidences from the literature. The constructs comprising the theory are stated below, each with a brief summary.

1. The human being has an innate drive to discover his potential and to actualize the self. The individual acts as a whole with one basic tendency, that of maintaining and enhancing the self. Through the inter-related physiological and psychological processes of growth, maturation, and learning, basic abilities are improved and more complex behavior becomes possible. As the organism differentiates and integrates differences, body parts grow and mature, and a readiness to function develops causing the individual to face new adjustments and new learnings. How available energy is patterned, what potentialities are developed, and what learnings are achieved are determined in large measure by the individual's concept of self.

2. The perceptions of the individual pattern his world and give direction to his behavior. The physical organism makes perception possible

as the sense organs function to receive sensory stimuli from the environment and as the neuro-muscular system and the brain permit the interpretation, association, and "trial" of stimuli for meaningful behavior. The perceptual process is organized around the self concept as it functions to satisfy the needs, achieve the goals, and exemplify the values necessary to the maintenance and enhancement of the self organization. Previous experiences provide a frame of reference for present and future perceptions, and time, opportunity, and adequate physical equipment determine the nature of the potential perceptions that are available at the moment of behavior. Where adequate physical equipment is lacking, the individual experiences differently from one who is not handicapped.

3. The self concept emerges as a result of the interaction of the individual with other persons. The child becomes human or social as a result of his interaction with people. Through determining the physical "me" from the "not me" the child develops an awareness of himself, and through reflected appraisals, he learns the value that he has in the eyes of others. Their responses and attitudes are taken over and associated with the child's responses. He experiences others and himself through role playing until a generalized role pattern emerges providing him with a position and status from which to perceive events and actions. A visible physical defect can create for the child situations in the family and peer group in which significant problems in interpersonal relations can arise.

As the child communicates in language symbols that arouse in him the same responses that they arouse in others, he is able to take on roles in the fullest sense, share ideas and feelings more richly, broaden his base of experience, and handle abstractions. For the child with a communication disorder social isolation and educational handicap can arise.

4. The value system emerges in the process of self development and, in

turn, is a frame of reference for evaluating subsequent experiences. Self valuation and the assigning of value to specific aspects of the environment are processes that grow out of relationships with significant people and progress through several developmental stages. Family, school, and community, all functions of society, share responsibility for the values that the young child develops and the goals that he seeks. Changes in values may occur with maturity and ever-widening experiences, but these changes tend to take place within the general framework of these early attitudes and values.

The values of the child are of deep significance for they serve to select and interpret experiences, determine for him those perceptions which are "real" and guide him in the selection of his actions. The individual functions most effectively when all parts of his value system are in harmony. It is only through knowing the private world of another person, his innermost thoughts and feelings, his attitudes, his ambitions, and his values that one can understand and predict his behavior.

5. Individuals differ in the method of dealing with perceptions that are inconsistent with the self concept. A child's emotionalized ideas about himself and his world become the core of self. Perceptions that maintain the present self picture or which enhance the self concept are accepted. On the other hand, perceptions that are in contrast to existing attitudes, goals, and values require the individual to make adjustments, to seek relief from the resulting tension and anxiety. Adjustive mechanisms afford temporary relief, but when they are used unwisely, they may rob the child of the motivation to seek constructive ways of handling unpleasant emotions.

The child who can develop a close and supporting relationship with one

or more persons in a warm and accepting climate in which he can look at himself without shame and without blame may learn to face all aspects of self and become motivated toward self actualization. On the other hand, anxiety develops out of feelings of threat causing the self to organize the energy resources of the body for defense of the present self structure, inhibiting the expansion of the self concept.

The physically handicapped child faces all of the adjustments common to the non-handicapped, and he may face additional ones: (1) when his handicap stands in the way of his goals, (2) if he is devalued by significant people because he lacks a tool valued by society, and (3) when he faces new psychological situations more often than the non-handicapped or is forced into situations calling for overlapping psychological roles.

6. The individual may reorganize his perceptual field and, thereby, change behavior. Although the self seeks to maintain its present organization, it also seeks the realization of its potentials.

Several factors influence the nature and extent to which an individual can change his self concept. New concepts that enhance the self organization can be incorporated readily, but the individual who has a reservoir of positive perceptions, can integrate some negative concepts. Perceptions of less importance to the individuals can be changed more readily than central meanings. Vivid first-hand experiences produce greater change than those perceived less clearly. The nature of the environment is significant in behavioral change. In situations in which threat is absent or minimized, the person is not forced to be defensively oriented. When he feels accepted and valued, he comes to believe in his personal worth and his abilities, and he can be open to new experiences and take on new behavior.

The theoretical framework which has been presented serves to define the role of perception and concept of self in the understanding of human

development and behavior. This chapter, "Rationale -- The Self Structure," and Chapter III, "Application of the Rationale to Various Categories of Physical Handicap," help define the problem and serve as a frame of reference for the research activities of this study.



### CHAPTER III

#### APPLICATION OF THE RATIONALE TO VARIOUS

##### CATEGORIES OF PHYSICAL HANDICAP

The physically handicapped and physically non-handicapped child are similar in many ways. Each is a physical organism, following the same general patterns of growth and development, each proceeding through the developmental stages at his own pace. Each individual has his own unique organization of energy, and his channeling of available energy is determined by the attitudes, goals, and values which he has developed fundamentally through interaction with significant people in his world. For each child self actualization is his basic need, and he behaves in ways which he perceives as helping to move him toward his goal. Basically, physically handicapped and non-handicapped children are not different. In each consideration the common denominator is the child.

However, while the handicapped and non-handicapped child are more alike than different, it is the differences with which the handicapped child must work as he lives and competes in a world of non-handicapped people. The child with an impairment has inserted into his life space a physical handicap, a factor with which the non-handicapped child need not deal. Research has established that any impairment in the ability of the physical organism to receive and use sensory stimuli alters the experience of the individual, his orientation to his environment, and the structure of his world. Although handicapped and non-handicapped children face similar problems in establishing desirable interpersonal relations, the fact that a physical and visible handicap is inserted into the life space of the handicapped child creates situations in which significant problems can arise.

For example, the hearing impaired child may face problems in interpersonal relations, because he may have difficulty in communicating abstract ideas and subtle meanings and may miss many clues that his environment has to offer. The child with a physical disability may face additional adjustments as he meets new psychological situations more often and participates both in the world of the handicapped and that of the non-handicapped.

Lillywhite cautions about using the term "handicapped" loosely because of the tendency to classify, stereotype, and label and indicates that such activities tend to confuse the issues and fail to lead to understanding. He clarifies this point as follows:

To a worker with "the handicapped" a person who stutters must not be thought of as one of many "stutterers" nor must the person with a handicap be assumed to have a great many common characteristics of others with handicaps....We must attempt always then to direct our thinking toward the child who has a difference of a particular kind, rather than to a handicap which a child may have.<sup>1</sup>

The variations that are called "disabilities," "impairments," or "handicaps" are determined by the expectations which the culture places upon the individual and the meaning the person himself and others assign to the variation.<sup>2</sup>

To know the handicapped child, it is necessary, among other factors, to know "how does the world around him appear to this child, how does he feel about his world and himself as a personality. We must know....not only what the child has but what as a human personality he is likely to do with

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<sup>1</sup> Herold Lillywhite, "A Point of View for Those Working with the Handicapped," Exceptional Children, 25:3 (November, 1958), p. 104.

<sup>2</sup> Lee Meyerson, "Somatopsychology of Physical Disability," in Psychology of Exceptional Children and Youth, ed. William M. Cruickshank, (Englewood Cliffs, New Jersey: Prentice Hall, Inc., 1955), p. 9.

what he has."<sup>1</sup> Meyerson states that although a child is physically limited, the effects of the limitation are restricted to a conditional may.<sup>2</sup> Combs and Snygg recognize the need for adequately functioning physical equipment in determining whether an individual can see and hear, but state that what is seen or heard is affected little by the structure of the eye and ear.<sup>3</sup>

The above statements support the basic premise of this study, the importance of viewing the child and his environment as he perceives it in order to understand his behavior. "The inner dynamics of the person then becomes the proper subject for study of his orientation."<sup>4</sup> Allen notes that seeking the causes of behavior in the individual's frame of reference negates the need for a special set of psychological principles for the handicapped person.<sup>5</sup>

A number of handicaps significant to this study are discussed briefly: hearing impairment, vision impairment, locomotor disabilities, and chronic disorders with particular attention being given to cardiac involvements. Each topic is discussed within the framework of personality theory and

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### Hearing Impairment

In considering the child with a communicative disorder caused by hearing disability, it is necessary to consider two aspects: (1) nature of the impairment and (2) effect of the impairment.

Nature of the impairment. Hearing is a dynamic process uniting the individual with the environment and facilitating his emotional, intellectual, and social development. Language and hearing cannot be isolated nor can they be divorced from the over-all developmental processes.<sup>1</sup>

Hardy recognizes hearing impairment as a dysfunction not only of the ears but of the listening mind. He identifies the variety of problems involved in impairments in auditory perception resulting from breakdowns at various points along the auditory system: (1) interference in the conduction of sound, reducing the intensity of sound but not distorting it; (2) difficulty in the reception and analysis of sound causing acoustic distortion, reducing the amount of information that can be analyzed for transmission; (3) trouble in the system of transmission and dissemination, causing problems in differentiating details of intensity and frequency; (4) distortion at the perceptive level in the cortical projection area, preventing the individual from receiving a pattern of sound; and (5) interference at the cortex level, resulting in what is not an auditory but a language problem where individuals experience difficulty in learning the significance of visual as well as auditory cues to language or where difficulty may lie in

<sup>1</sup> William G. Hardy and John E. Bordley, "The Child with Impaired Hearing," in Management of the Handicapped Child, ed. M. Michael and R. Smith, (New York: Grune and Stratton, Inc., 1957), pp. 117, 122.



the motor aspects of language.<sup>1</sup>

Therefore, some individuals may be aware of sound as an undifferentiated event when differences in loudness may not be clear and ability to discriminate pitch may be confused. For other people, the sounds that they receive may be meaningless for they appear to have no pattern; sound may be received but not perceived. It is apparent that there is no entity which can be labeled "the deaf child" for there are variations within the category, and there are even greater variations among the children who have these difficulties.<sup>2</sup>

Myklebust agrees that deafness cannot be viewed as a unitary factor. He believes that as a sensory deprivation it has organismic effects, and the true significance of the deprivation can be realized only when the individual is viewed holistically.<sup>3</sup> In this framework Hardy and Bordley define hearing functionally:

In biologic terms, it is a means of contact between the individual and his environment; in behavioral terms, it is the pathway to such that we understand as normal development; in social terms, it creates, with speech, the communicative link with our fellows at all levels of activity.<sup>4</sup>

as the sense organs function to receive sensory stimuli from the environment and as the neuro-muscular system and the brain permit the interpretation, association, and "trial" of stimuli for meaningful behavior. The perceptual process is organized around the self concept as it functions to satisfy the needs, achieve the goals, and exemplify the values necessary to the maintenance and enhancement of the self organization. Previous experiences provide a frame of reference for present and future perceptions, and time, opportunity, and adequate physical equipment determine the nature of the potential perceptions that are available at the moment of behavior. Where adequate sensory input is lacking, the individual experiences difficulties in the perceptual process.

of the interaction of the individual with his human or social as a result of the physical "me" of himself, and through the way he is perceived by others. The self concept associated with the child's perception of himself is developed through role playing until a child is given a position and status from which he can act. A visible physical defect can create for the child in the family and peer group in which significant problems in interpersonal relations can arise.

As the child communicates in language symbols that arouse in him the same responses that they arouse in others, he is able to take on roles in the fullest sense, share ideas and feelings more richly, broaden his base of experience, and handle abstractions. For the child with a communication disorder social isolation and educational handicap can arise.

4. The value system emerges in the process of self development and, in

The function of hearing in perception is significant. Myklebust identifies hearing as a lead sense, one of the two distance senses, the sense which encompasses all directions, and the one which is designed to persist even during sleep to keep the individual in contact with his environment. Hearing can serve as a background sense, alerting one to change in the surrounding environment even while other activities are in figure.<sup>1</sup> Because what is heard is available only momentarily, vision may be needed to "hold" a situation in order that the details might be explored. In addition, the hearing process calls for grouping and sequence of stimuli to permit meaning. The ear enables the individual to measure time in terms of before, now, and thereafter, and thus becomes the outstanding organ of relationships. Although DiCarlo and Aster recognize that some part of perception may depend on unlearned neural activity, they believe that hearing behavior, related to auditory perception, is a function of learning, and they distinguish reflex reaction to loud sound and attributing of meaning to sound as learned acts.<sup>2</sup>

Myklebust explains the extension of the self concept to the environment as a frame of reference for evaluating subsequent experiences. Self valuation and the assigning of value to specific aspects of the environment are processes that grow out of relationships with significant people and progress through several developmental stages. Family, school, and community, all functions of society, share responsibility for the values that the young child develops and the goals that he seeks. Changes in values may occur with maturity and ever-widening experiences, but these changes tend to take place within the general framework of these early attitudes and values.

The values of the child are of such a nature that they serve to select and interpret experiences which are "real" and guide him in the use of his individual functions most effectively in his environment. It is only through the innermost thoughts and values that one can understand the self.

5. Individuals differ in the way they handle the self when it is inconsistent with the environment. The child who is not satisfied with his present self concept may seek relief from the resulting tension and anxiety. Adjustive mechanisms afford temporary relief, but when they are used unwisely, they may rob the child of the motivation to seek constructive ways of handling unpleasant emotions.

The child who can develop a close and supporting relationship with one



or more persons in a warm and accepting climate in which he can look at himself without shame and without blame may learn to face all aspects of self and become motivated toward self actualization. On the other hand, anxiety develops out of feelings of threat causing the self to organize the energy resources of the body for defense of the present self structure, inhibiting the expansion of the self concept.

The physically handicapped child faces all of the adjustments common to the non-handicapped, and he may face additional ones: (1) when his handicap stands in the way of his goals, (2) if he is devalued by significant others, (3) if he is devalued by society, and (4) when he faces more threat than the non-handicapped or is playing different psychological roles. The self concept is a perceptual field and, thereby, it tends to maintain its present organizational structure. The degree to which an individual is able to enhance the self organization depends on the individual who has a reservoir of positive concepts and negative concepts. Perceptions of less threat can be changed more readily than central meanings. First-hand experiences produce greater change than those perceived less clearly. The nature of the environment is significant in behavioral change. In situations in which threat is absent or minimized, the person is not forced to be defensively oriented. When he feels accepted and valued, he comes to believe in his personal worth and his abilities, and he can be open to new experiences and take on new behavior.

The theoretical framework which has been presented serves to define the role of perception and concept of self in the understanding of human

development and behavior. This chapter, "Rationale -- The Self Structure," and Chapter III, "Application of the Rationale to Various Categories of Physical Handicap," help define the problem and serve as a frame of reference for the research activities of this study.

### CHAPTER III

#### APPLICATION OF THE RATIONALE TO VARIOUS CATEGORIES OF PHYSICAL HANDICAP

The physically handicapped and physically non-handicapped child are similar in many ways. Each is a physical organism, following the same general patterns of growth and development, each proceeding through the developmental stages at his own pace. Each individual has his own unique organization of energy, and his channeling of available energy is determined by the attitudes, goals, and values which he has developed fundamentally through interaction with significant people in his world. For each child self actualization is his basic need, and he behaves in ways which he perceives as helping to move him toward his goal. Basically, physically handicapped and non-handicapped children are not different. In each consideration the common denominator is the child.

However, while the handicapped and non-handicapped child are more alike than different, it is the differences with which the handicapped child must work as he lives and competes in a world of non-handicapped people. The child with an impairment has inserted into his life space a physical handicap, a factor with which the non-handicapped child need not deal. Research has established that any impairment in the ability of the physical organism to receive and use sensory stimuli alters the experience of the individual, his orientation to his environment, and the structure of his world. Although handicapped and non-handicapped children face similar problems in establishing desirable interpersonal relations, the fact that a physical and visible handicap is inserted into the life space of the handicapped child creates situations in which significant problems can arise.

For example, the hearing impaired child may face problems in interpersonal relations, because he may have difficulty in communicating abstract ideas and subtle meanings and may miss many clues that his environment has to offer. The child with a physical disability may face additional adjustments as he meets new psychological situations more often and participates both in the world of the handicapped and that of the non-handicapped.

Lillywhite cautions about using the term "handicapped" loosely because of the tendency to classify, stereotype, and label and indicates that such activities tend to confuse the issues and fail to lead to understanding. He clarifies this point as follows:

To a worker with "the handicapped" a person who stutters must not be thought of as one of many "stutterers" nor must the person with a handicap be assumed to have a great many common characteristics of others with handicaps....We must attempt always then to direct our thinking toward the child who has a difference of a particular kind, rather than to a handicap which a child may have.<sup>1</sup>

The variations that are called "disabilities," "impairments," or "handicaps" are determined by the expectations which the culture places upon the individual and the meaning the person himself and others assign to the variation.<sup>2</sup>

To know the handicapped child, it is necessary, among other factors, to know "how does the world around him appear to this child, how does he feel about his world and himself as a personality. We must know....not only what the child has but what as a human personality he is likely to do with

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<sup>1</sup> Harold Lillywhite, "A Point of View for Those Working with the Handicapped," Exceptional Children, 25:3 (November, 1958), p. 104.

<sup>2</sup> Lee Mayerson, "Somatopsychology of Physical Disability," in Psychology of Exceptional Children and Youth, ed. William M. Cruickshank, (Englewood Cliffs, New Jersey: Prentice Hall, Inc., 1955), p. 9.

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the motor aspects of language.<sup>1</sup>

Therefore, some individuals may be aware of sound as an undifferentiated event when differences in loudness may not be clear and ability to discriminate pitch may be confused. For other people, the sounds that they receive may be meaningless for they appear to have no pattern; sound may be received but not perceived. It is apparent that there is no entity which can be labeled "the deaf child" for there are variations within the category, and there are even greater variations among the children who have these difficulties.<sup>2</sup>

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Many aspects of the child are involved in the communication process: acoustic, linguistic, visual, behavioral, developmental, sensory-motor, and social.

<sup>1</sup> William G. Hardy, Problems of Audition, Perception, and Understanding, (Washington, D. C.: Volta Bureau, 1956), pp. 5-6.

<sup>2</sup> Ibid.

<sup>3</sup> Helmer R. Myklebust, The Psychology of Deafness -- Sensory Deprivation, Learning and Adjustment, (New York: Grune and Stratton, 1960), p. 177.

<sup>4</sup> Hardy and Bordley, op. cit., p. 119.

The function of hearing in perception is significant. Myklebust identifies hearing as a lead sense, one of the two distance senses, the sense which encompasses all directions, and the one which is designed to persist even during sleep to keep the individual in contact with his environment. Hearing can serve as a background sense, alerting one to change in the surrounding environment even while other activities are in figure.<sup>1</sup> Because what is heard is available only momentarily, vision may be needed to "hold" a situation in order that the details might be explored. In addition, the hearing process calls for grouping and sequence of stimuli to permit meaning. The ear enables the individual to measure time in terms of before, now, and thereafter, and thus becomes the outstanding organ of relationships. Although DiCarlo and Amster recognize that some part of perception may depend on unlearned neural activity, they believe that hearing behavior, related to auditory perception, is a function of learning, and they distinguish reflex reaction to loud sound and attributing of meaning to sound as learned acts.<sup>2</sup>

Myklebust explains the extensive influence of an impairment in hearing, an influence which he sees as affecting the individual's total perceptual organization:

The study of the psychology of deafness increasingly indicates that as auditory sensation is reduced, altered action of the use of the other senses and altered perceptual organization is imperative in order for the individual to maintain an adequate homeostatic relationship between

<sup>1</sup> Myklebust, op. cit., pp. 46-47.

<sup>2</sup> Louis DiCarlo, and Walter W. Amster, "Hearing and Speech Behavior Among Cerebral Palsied Children," in Cerebral Palsy, Its Individual and Community Problems, ed. William Cruickshank and George M. Rans, (Syracuse, New York: Syracuse University Press, 1955), pp. 177, 180.

his inner needs and external circumstances.<sup>1</sup>

The author explains that an "organismic shift" takes place when there is impairment in one sense, and the experience gained from the remaining senses is structured differently. The hearing impaired child has only one distance sense, vision, to use for both foreground and background. He must look about and explore all changes in the visual field to maintain adequate monitoring of the external environment. When situations cannot be monitored visually, the close senses take on different roles and become more critical to the individual's learning and adjustment. Vibratory sensations become signals, or olfaction may be used where appropriate. Therefore, the hearing loss alters the modes of perceptual organization and the manner of adjustment.<sup>2</sup>

To support this theory Myklebust reports his study of figure drawings of deaf children from which he concludes that these children evidenced immaturity in the size and placement of their figures and in the use of transparencies. He sees altered perceptual behavior reflected in the greater psychological sensitivity of deaf children to those parts of the body relating to the perceptual processes on which they rely: vision, tactility, olfaction, and gustation. A study by Myklebust and Bratten, investigating figure-ground relations, perseveration, and pattern-reproduction of deaf children, indicated to the investigators that deafness causes an alteration of the normal response modes and causes disturbed and inferior

<sup>1</sup> Myklebust, *op. cit.*, p. 48

<sup>2</sup> *Ibid*, pp. 50, 52.

visual perceptual functioning, suggesting an intersensory reciprocation.<sup>1</sup>

Although experience can never be fully described, it can be viewed in stages from the least to the most abstract: sensation, perception, imagery, symbolization, and conceptualization. For the mature hearing person all levels operate simultaneously, but Myklebust theorizes that when the level of sensation is impaired, as in the case of deafness, then all of the categories above this level are affected, especially the levels of symbolization and conceptualization. When experience is altered or constituted differently, then meaning is changed.<sup>2</sup>

Myklebust refers to the studies of Heider and Heider, Oleron, Templin, and Myklebust to indicate that deaf children fall below average mainly on tests requiring abstraction and reasoning. He cites Blair's study to indicate that when both deaf and hearing children received similar total intelligence scores, an analysis of the sub-tests indicated qualitative differences in the mental processes used, with the deaf showing inferiority in specific areas: rate of learning, categorizing, abstracting, synthesizing geometric forms, and noting details of geometric forms when meaningless material was used. However, the deaf were not inferior in conceptualizing sequence of events involving meaningful material or familiar situations.<sup>3</sup>

Rosenstein takes exception to the theory of "organismic shift" as he reviews his study involving a variety of tasks — sorting, perceptual discrimination, and concept-attainment and usage — in which no statistical differences were noted between hearing impaired and hearing children in

<sup>1</sup> Myklebust, *op. cit.*, p. 47, 158-177.

<sup>2</sup> *Ibid*, pp. 224-225, 229.

<sup>3</sup> *Ibid*, pp. 67-71.

ability to perceive, abstract, or generalize.<sup>1</sup> In a critical review of the literature, Rosenstein refers to the early studies of Pintner and Patterson in which they concluded that among the deaf there was a general lowering of mental capacity rather than an inferiority in specific traits. On the other hand, studies by Glowatsky, Graham and Shapiro, Mac Pherson and Lane, Shirley and Goodenough, Steng and Kirk, indicate that deaf children are within normal limits of intelligence. Rosenstein also refers to the replication of the Myklebust-Brutten study in which Hayes found that deaf children were equal or superior to hearing peers in visual perceptual functioning. Rosenstein summarizes:

Empirical and experimental data suggest that the deaf are capable of performing in the cognitive domain, at least with respect to certain nonverbal tasks. Such evidence alone tends to reject the thesis that deafness, as such, produces an organismic shift in the functioning of the individual.<sup>2</sup>

However, Rosenstein indicates that interpretations from the results of these studies are "somewhat confounded."

Effect of the handicap. Children and adults who hear and those with disabilities in this area all strive for self enhancement. It has been noted that, for both the hearing and hearing impaired, the development of the self concept depends to a great extent on the individual's social experiences, both preschool as well as during the school years. Gesell emphasizes the similarities of the two groups in this connection as he reminds the reader that social experience is not entirely dependent on hearing for

<sup>1</sup> Joseph Rosenstein, "Cognitive Abilities of Deaf Children," Journal of Speech and Hearing Research, (March, 1960), pp. 108-119.

<sup>2</sup> Joseph Rosenstein, "Perception, Cognition, and Language in Deaf Children -- A Critical Analysis and Review of the Literature," Exceptional Children, 27:5 (January, 1961), pp. 276-285.

both hearing and non-hearing children use sight, touch, gesture, and posture to establish contacts with others. The young child reads facial expressions and is sensitive to moods and emotions before he understands and uses words. Although the handicapped child can make these same contacts with his personal-social environment, Gesell recognizes the need for him to develop his visual powers and to use them systematically to broaden his social experience.<sup>1</sup>

Myklebust cites many similarities between persons with sensory impairment and those without such disabilities, but he indicates that it is necessary to understand the sensory loss in order to understand how the handicap makes the deprived group different:

The point of view that a person with deafness is just like everyone else, except that he has impaired hearing, is unsatisfactory as a frame of reference....it is beneficial to stress that his problems are different, that he has different sensory experience, and hence a different basis for all experience.<sup>2</sup>

When hearing is lacking and the hierarchy of language function is disturbed, it is necessary for the child to acquire verbal symbols in some other manner. Receptive language which is auditory cannot be developed, and auditory symbols cannot be received through the ear. Of necessity the symbol system must be visual and/or tactual-kinesthetic. Frisina states that the child must function more or less as a visually oriented person in order to develop verbal language. The deaf child who is a good lip-reader may learn to see language as the hearing child hears it and may develop adequate language for

<sup>1</sup> Arnold Gesell, The Psychological Development of Normal and Deaf Children in Their Preschool Years, Reprint 674, (Washington, D. C.: Volta Bureau, undated.)

<sup>2</sup> Myklebust, op. cit., p. 54.



use as he matures.<sup>1</sup> Myklebust feels that the child who lacks audition from birth does not actualize his true intellectual potential, but if the language limitation can be alleviated, more normal development of mental capacities can ensue.<sup>2</sup> Di Carlo and Anster consider lack of speech as a factor affecting intellectual development and personality structure.<sup>3</sup>

Meyerson concludes from his studies that deafness is not directly related to personality in the sense that it requires a particular kind of adjustment, but he suggests that different kinds of specific behavior may be necessary to cope with the special situations that are imposed by impaired hearing. He views the psychological world of the hearing impaired as smaller, less well-differentiated than the world of the hearing, and making fewer demands on the individual. Should the individual seek to withdraw, he is in great measure "protected from conflict, insecurity, frustration, and the anxiety and humiliations that are a consequence of trying to compete on equal terms with unequal tools."<sup>4</sup> Although it has been suggested that the behavior of the child with impaired hearing may be different, it should not be assumed that his behavior is poorer or less desirable, but rather it may be of "equal value with respect to orientation to reality, stability, and maturity."<sup>5</sup>

<sup>1</sup> D. Robert Frisina, "Some Problems Confronting Children with Deafness," Exceptional Children, 26:2 (October, 1959), pp. 94-97.

<sup>2</sup> Myklebust, op. cit., p. 60.

<sup>3</sup> Di Carlo and Anster, op. cit., p. 167.

<sup>4</sup> Meyerson, op. cit., pp. 155-156.

<sup>5</sup> Ibid, p. 149.

It has been noted that hearing impairment may present a multiple problem affecting all phases of the child's development, with the specific nature of the problem relating to the uniqueness of the child, the nature of the impairment, and the auditory-verbal maturation level at which the disability occurred. Myklebust relates behavioral effects to the type and extent of the impairment:

The stress experienced by the individual varies on the basis of whether his deafness is sensory-neural, conductive, or central in type, whether it is moderate or severe in degree, and on the basis of the age of which it occurred....As far as peripheral deafness is concerned, generally the greatest psychological effect occurs when deafness is of the sensory-neural type, when onset is in early life (pre-verbal), and when the impairment is severe.<sup>1</sup>

#### Vision Impairment

Vision, like hearing, is one of the major avenues for receiving stimuli necessary for perception. The vision impaired child, like the hearing impaired one, must use his remaining senses to compensate for his lack, but his orientation to his environment will be different from that of either the non-handicapped or the hearing impaired individual. The nature of vision impairment and its general effect are discussed below.

Nature of the impairment. Vision is a sense which overcomes distance; gives details of form, size, and position; focuses on the area immediately ahead; and can be avoided by the closing of the eyes. Primarily vision is a foreground sense often focused on an experience after it has been identified through hearing. Generally it provides a more stable experience and permits greater exploration of detail than hearing.<sup>2</sup> The eye is the organ of the there while the ear is the organ of the here. "....the eye is the organ

<sup>1</sup> Myklebust, op. cit., p. 11.

<sup>2</sup> Ibid, pp. 46-47.

of light, color, dimension, and space....the ear is the organ of sound, succession, and time."<sup>1</sup>

Myklebust explains that the blind use audition as the lead sense along with the close senses: tactility, olfaction, and gustation. The partially sighted use audition as the lead sense with vision as the basic supplementary sense.<sup>2</sup> The sense of touch is the only spatial sense of the congenitally blind. Lowenfeld points out that the tactual space perception of the blind, which is limited only to what is immediately accessible, is different from the visual perception of the seeing.<sup>3</sup>

"Visual defect" or "impaired vision" are broad and indefinite terms including defective vision which can be corrected by glasses, partial vision, or total blindness. Standards and definitions are not uniform. Several descriptions are included in this discussion to provide some clarification of the nature of the problem. Barker and his colleagues report the definition of blindness used by the Committee on Statistics of the Blind in which five categories of "legal blindness" are identified. This range includes, at one end of the scale, total blindness or having light perception only, with inability to perceive a motion of the hand at a distance of three feet or less, and with a Snellen visual acuity measurement of less than 2/200.

At the other end of the scale are the "borderline" cases with vision of 20/200

<sup>1</sup> Bernard Tervoort, "Acoustic and Visual Language Communicating Systems," Volta Review, 60:7 (September, 1958), p. 375.

<sup>2</sup> Myklebust, op. cit., pp. 51-52.

<sup>3</sup> Berthold Lowenfeld, "Problems of Children with Impaired Vision," in Psychology of Exceptional Children and Youth, ed. William M. Cruickshank, (Englewood Cliffs, New Jersey: Prentice Hall, Inc., 1955), pp. 214-283.

or more, with "traveling" sight and ability to read large headlines but with insufficient vision for activities for which eyesight is essential.<sup>1, 2</sup>

For educational purposes Lowenfeld identifies the "blind" as follows:

(1) total blindness, congenital or acquired before or after the age of five, (2) partial blindness, congenital or acquired, and (3) partial sight, congenital or acquired.<sup>3</sup> According to the National Society for the Prevention of Blindness, Inc., special education facilities are necessary for "partially seeing" children with these characteristics: (1) a visual acuity between 20/70 and 20/200 after correction, (2) serious progressive eye difficulties, and (3) diseases of the eye or diseases of the body that seriously affect vision.<sup>4</sup>

Kerby emphasizes the significance of the child's ability to use his residual vision:

....one child apparently having only a moderate loss of vision may require sight-saving facilities, and, at the other end of the scale, there may be another child, presumably classified as a potential Braille student, who can use sighted methods with greater success.<sup>5</sup>

The same author explains that the nature of the impairment is significant in understanding how effectively a child can function. Some children may

<sup>1</sup> R. G. Barker, B. A. Wright, L. Meyerson, and M. R. Gonich, Adjustment to Physical Handicap and Illness, (New York: Social Science Research Council, 1953), p. 270.

<sup>2</sup> Georgie Lee Abel, "The Education of Blind Children," in Education of Exceptional Children and Youth, ed. William M. Cruickshank and G. Orville Johnson, (Englewood Cliffs, New Jersey: Prentice-Hall, Inc., 1958), p. 297.

<sup>3</sup> Lowenfeld, op. cit., p. 219.

<sup>4</sup> C. Edith Kerby, A Report on Visual Handicaps, Publication 148, (New York: National Society for the Prevention of Blindness, 1952), p. 5.

<sup>5</sup> Ibid, p. 6.



register little reduction in the acuity of central vision but have defects which result in lack of control of the amount of light reaching the retina, degenerative changes reducing the field of vision gradually, blind spots in any area caused by a hole or atrophy, increased pressure within the eye causing enlargement and affecting peripheral and central vision, or constant motion with inability to fix steadily on an object.<sup>1</sup> The problem of impaired vision cannot be fully described in one numerical measurement for no two children react alike, and no two have exactly the same disability with which to cope.

Another factor of significance in understanding the behavior of the vision impaired child is the age of onset of the handicap. According to the results of the work of Zoltan, Toth, and others, the child who loses his sight prior to about five years of age tends not to retain any useful imagery, including color memory. However, for the child who retains some sight, visual observation and visual memory may function. When sight is lost after age five, the individual may retain some active visual forms of reference based on past visual experiences.<sup>2</sup>

Effect of vision impairment. Opinions concerning the environmental orientation of visually impaired children have been cited in this paper. Reference has been made to the studies of Sommers in which generally "negative" reactions were noted among parents toward the disability of their children and the feelings of these handicapped children that their family positions were less favorable than that of the siblings.<sup>3</sup> In addition, it was recognized that both the blind and partial seeing lack a tool necessary for developing many of the skills valued by the peer group. Vision impaired

<sup>1</sup> Loc. cit.

<sup>2</sup> Lowenfeld, op. cit., p. 218.

<sup>3</sup> Barker, Wright, Meyerson, Gonick, op. cit., p. 279.

children and other handicapped children are cited as being placed in new psychological situations more often than non-handicapped children.

Other points of view are noted in the literature. Dennison takes the stand that "partially seeing children aren't so different" and that there has been a tendency to emphasize differences. "The key-note is that we should bend all our energy toward minimizing the handicap so that the child can develop as he would have developed had he been born with normal vision."<sup>1</sup> Bertram notes that partially sighted children have the same intellectual needs as all children, but in educating them to function as "seeing" people, he recognizes a problem:

Children who have had visual impairment from very early childhood have distorted or faulty visual perceptions which need clarification or re-education. Often, too, they tend to be educationally retarded, because their perception of visual tasks is slowed down.<sup>2</sup>

Lowenfeld believes that the congenitally blind child experiences the world by sensory functions that are different from the experiences of normal persons. As an infant the sight impaired child does not reach out for objects unless they produce sounds, and he lacks the advantage of visual imitation in learning to eat, walk, talk, dress, play, and acquire expressive movements. Knowledge is acquired in a different way. Although the child keeps in contact with the social and physical environments through verbal

<sup>1</sup> Amie L. Dennison, Partially Seeing Children Aren't So Different, Publication 152, (New York: National Society for the Prevention of Blindness, Inc., 1952), pp. 1-2.

<sup>2</sup> Fredericka M. Bertram, "The Education of Partially Sighted Children," in Education of Exceptional Children and Youth, ed. William M. Cruickshank and G. Orville Johnson, (Englewood Cliffs, New Jersey: Prentice-Hall Inc., 1958), p. 268.



communication, experiences are limited in a number of situations; he is limited when he relies on sound in places where one sound may drown out others; he may be unaware of a person who is not talking; or sound may be deadened as in the snow. In addition, the blind cannot know the sun, moon, or stars, for they cannot be touched. Lowenfeld distinguishes three limiting effects of blindness: the range and variety of experiences, the ability to get around, and the control of the environment and the self in relation to it.<sup>1</sup>

From the literature Lowenfeld concludes that the blind are not innately superior in sensory acuteness, and some may be inferior although attention, practice, adaptation, and increased use of remaining faculties do promote high efficiency in interpreting sensory data.<sup>2</sup> Along this line, he reports the work of Jerome and Proshansky who studied four blind subjects in a physically controlled environment to determine if they could differentiate between the presence and absence of objects in the immediate environment. All four indicated an "obstacle sense," varying in accuracy in terms of the distance from the object.<sup>3</sup> Nakamura, in studying the obstacle perception of the blind, found that the congenital blind and those whose sight was lost prior to ten years of age showed a higher sensitivity than did the partially blind and the normal subjects. When the blind were tested with ears stuffed with cotton and the face draped, it was noted that the subjects

<sup>1</sup> Lowenfeld, op. cit., pp. 214-231, 269.

<sup>2</sup> Lowenfeld, op. cit., pp. 226-227.

<sup>3</sup> Lowenfeld, op. cit., p. 248.

were less perceptive. The investigator concluded that audition and "the skin sense of the face" provided cues for obstacle perception.<sup>1</sup>

In studying children who are severely impaired, Kemmore stresses the need to view the places these children have on the distribution curve as applied to all children for such factors as intelligence, achievement in each subject area, physical skills, creative ability, social ease, growth patterns, language skills, and interests. "As he (the vision impaired child) discovers that he can do average work in some things, better than average in others, or poorer than average in some, he has the advantage of seeing many aspects of himself in relation to a large population."<sup>2</sup>

The literature in the field of vision impairment reflects the impact of recent research in child development, sociology, and psychology and reveals a distinct trend toward a mental hygiene approach in work with these boys and girls. Tudyman views all aspects of the child and finds it difficult to separate the visual problem from the personality of the partially seeing pupil.<sup>3</sup> Lowenfeld cites Benton's viewpoint that emotional difficulty is more closely related to early home experiences and to general background than to visual defect.<sup>4</sup> Meyerson concludes that it is not the blindness

<sup>1</sup> Takao Nakamura, "Obstacle-Perception of the Blind," Psychological Abstracts, 34:1 (February, 1960), No. 1933.

<sup>2</sup> Joanne R. Kemmore, "The Developmental Needs of Blind Children," Exceptional Children, 27:4 (December, 1960), p. 213.

<sup>3</sup> Al Tudyman, Progress in Education of the Partially Seeing in Oakland, Publication 243, (New York: National Society for the Prevention of Blindness, 1953), pp. 1-7.

<sup>4</sup> Lowenfeld, op. cit., p. 275.

but the social problem which is the crucial variable.<sup>1</sup>

Abel calls attention to the tremendous impact of blindness as it affects the families of young children, the significance of the emotional climate in the home, and the interpersonal relations of the blind child.<sup>2</sup> The way the child feels about himself as a vision impaired person and the reaction of his family to his disability significantly influence his relationships and his adjustment. In addition, teachers who understand the blind child do not try to impose a sighted culture but help him to become the best blind child that he can be and live as effectively as possible in a sighted culture.<sup>3</sup> It has been suggested that the relatively infrequent personality disturbances accompanying blindness is outstanding when one considers how "persons can accommodate to so radical a shift in psychological living conditions without greater changes in behavior."<sup>4</sup> Bertram notes that the way the partially seeing child feels about his handicap and how he thinks about it in relation to himself are significant in striving for some degree of success, peer acceptance, and recognition of his own personal worth.<sup>5</sup>

#### Locomotor Disabilities

Considered here are "crippled children," those with orthopedic impairment or deformities causing interference with the normal use of bones, muscles, or joints. The two aspects of the topic to be discussed are the

<sup>1</sup> Meyerson, op. cit., p. 23.

<sup>2</sup> Abel, op. cit., p. 302.

<sup>3</sup> Ibid, p. 303.

<sup>4</sup> Barker, Wright, Meyerson, Gonick, op. cit., p. 290.

<sup>5</sup> Bertram, op. cit., p. 269.

nature and the effect of the disabilities.

Nature of the disabilities. Some congenital defects that may result in crippling conditions are cerebral palsy with possible motor, sensory, and/or perceptive disabilities, spina bifida often causing some paralysis and/or incontinence, bone imperfections, hemophilia, and congenital amputations. Such postural defects as wry neck, spinal curvature, and hunch back, and metabolic disturbances such as muscular dystrophy also fall in this general classification. Other crippling conditions may result from infection as in poliomyelitis, tuberculosis of the bones, arthritis, and Perthe's disease and from trauma leading to amputations and contractures from burns. Cardiac involvements are included in some legal classifications of crippled children but are considered separately in this paper.<sup>1, 2</sup>

The disabilities indicated above tend to restrict freedom of movement and reduce mobility. Many children in this general category must wear prostheses, use crutches, rely on heavy braces, or spend their days in a wheel chair. In such situations, as children are confined perhaps for a lifetime to smaller physical areas, they tend to perceive less richly and less broadly.<sup>3</sup> Added restrictions may result from frequent hospitalizations and long periods of convalescence. Where the sense of touch is impaired by paralysis of the hands, the child is hindered in tactual sensation. The

<sup>1</sup> William M. Cruickshank, "Psychological Considerations with Crippled Children," in Psychology of Exceptional Children and Youth, ed. William Cruickshank, (Englewood Cliffs, New Jersey: Prentice-Hall, Inc., 1955), p. 284.

<sup>2</sup> Frances P. Connor, "The Education of Crippled Children," in Education of Exceptional Children and Youth, ed. William M. Cruickshank and Orville Johnson, (Englewood Cliffs, New Jersey: Prentice-Hall, 1958), pp. 430-435.

<sup>3</sup> Arthur Combs and Donald Snygg, Individual Behavior, (New York: Harper and Brothers, 1959), pp. 72-73.

parts of the body affected and the severity of the disability are significant to the degree of sensory deprivation. Other problems can arise from visible defects which tend to set these children apart from the non-handicapped population. "Unfortunately, a cast or brace may be so distracting that the child himself is overlooked."<sup>1</sup>

The cerebral palsied child, like any orthopedically disabled child, may face limitations in experiences, but he may face added problems. Cerebral palsy is a multi-handicapping condition differing in kind, effect, and degree from strictly orthopedic defects. Cruickshank recognizes that the problem of individual differences is probably greatest among cerebral palsied children. There may be a marked degree of psychological impairment from brain injury among some children while others may show little or no effects of lesion insofar as psychological growth, learning, and adjustment are concerned. Location of the lesion, extent of the lesion, innate intellectual capacity, and many other variables make the problem a complex one.<sup>2</sup>

Cruickshank explains some of the psychological problems to be faced in working with the individual differences among cerebral palsied children. While numerous children so diagnosed respond as do non-handicapped children, others have difficulty in distinguishing figure from ground; differentiating objects of various sizes, shapes, and colors; coordinating the eye and hand; and centering attention. In addition many of these children have hearing and/or visual impairments.<sup>3, 4</sup> The combined data of five inde-

<sup>1</sup> Cruickshank, op. cit., p. 327.

<sup>2</sup> Ibid, p. 329.

<sup>3</sup> Beatrice S. Gore and Jane Stoddard, "Teaching the Cerebral Palsied Child," Bulletin of the California State Department of Education, 22:7 (November, 1954), pp. 4-6.

<sup>4</sup> Cruickshank, op. cit., p. 320.

pendent studies indicate that among the cerebral palsied children approximately 45% were found to be mentally defective, 30% borderline dull, and 25% average and above.<sup>1</sup>

Effect of the disabilities. Studies have been quoted in this paper indicating that mothers of deformed children tend to have mixed feelings of humiliation, sadness, guilt, and depression, feelings which significantly affect the nature of the parent-child relationships. Other problems may arise as certain aspects of body development tend to be prized by many families -- strong limbs and muscles for boys and beauty for girls. As a result the child comes to look on his body as do the significant people, and he develops his own body image as a result of their appraisals. As previously noted, when the child's handicap hinders his skill development in eating, and dressing, walking, athletic activity, and forms of creative expression, the child is denied potential areas for developing adequacy, for self enhancement.

For many handicapped children perceptions are restricted as a result of sensory-motor deprivation, lack of varied opportunities for exploration and discovery, and limited peer group participation. As a result of daily restrictions on experiences and activities and long periods of hospitalization and convalescence, Cruickshank notes lower than average intelligence scores for these children. However he cites the need for additional research with improved testing instruments.<sup>2</sup>

Larson studied the general experience backgrounds of 135 crippled

<sup>1</sup> Cruickshank, op. cit., p. 320.

<sup>2</sup> Ibid, p. 325.



children (cerebral palsy, polio, miscellaneous crippling handicaps), ages 3 to 6 years, and a matched group of non-handicapped children. Four categories of experience were identified:

#### Socialization

Experiences affecting the child's social relationship with other children and adults

#### Recognition

Provision of facilities -- books, records, toys, musical instruments, own bedroom -- as indications of parental love and acceptance

Parental attention -- amount of time spent with children and nature of relationships

#### Outside experiences

Experiences in the community -- stores, library, zoo, museum, factory, fire station

Varied experiences -- traveling, swimming, hiking, attendance at concerts, fairs, athletic events

#### Knowledge and experience

Number of songs and nursery rhymes known

Experience in spending money, caring for pets, using the telephone, operating a record player, assuming personal responsibilities.

The investigator concluded that in nearly every comparison, the handicapped child was at a disadvantage, and no evidences of compensation were noted. In no area did the handicapped children have an advantage. Larson noted that the majority of experiences could have been more abundantly provided for physically handicapped children had the parents been made aware of their importance.<sup>1</sup>

Gore and Stoddard write that the cerebral palsied child divides his time between home and school, with little opportunity for exploration of

<sup>1</sup>

Leroy Larson, "Preschool Experiences of Physically Handicapped Children," Exceptional Children, 24:7 (March, 1958), pp. 310-312.

the neighborhood and the community. "....many cerebral palsied children can never have the recreational experiences enjoyed by physically normal children who run and play actively...."<sup>1</sup> Cardwell sees the cerebral palsied child as handicapped in learning "the first lessons about the world he lives in and his own relationship to that world. With the first lesson imperfectly learned, he will not be ready for the more important lessons in personal relations."<sup>2</sup>

Previous mention has been made of the physical and sensory handicaps interfering with play outlets requiring strength and physical skill and the fact that many cerebral palsied children do not have enough social assets to offset their lacks. In the give-and-take of peer activities, these boys and girls are unable to defend themselves in combat or to run from danger. In addition school experiences for many are interrupted by therapy--physical, occupational, and speech.<sup>3</sup>

Although the problems presented above apply to the cerebral palsied child with locomotor disabilities, they apply equally well to other orthopedically handicapped children. The basic adjustment problems of the crippled child are the same as those of physically non-handicapped children of comparable chronological and mental development, but Cruickshank emphasizes the duality of the problem:

<sup>1</sup>

Gore and Stoddard, op. cit., p. 9.

<sup>2</sup>

Viola Cardwell, Cerebral Palsy, Advances in Understanding and Care, (New York: Association for the Aid of Crippled Children, 1956), p. 5.

<sup>3</sup>

William M. Cruickshank, "Educational Planning for the Cerebral Palsied," in Cerebral Palsy, ed. William Cruickshank, and George M. Raus, (Syracuse, New York: Syracuse University Press, 1955), p. 341.

One must conceive of many of the adjustive attempts of crippled children as part of the normative development and of others as efforts on the part of the child during normative developmental processes to integrate the crippling condition and his understanding of it into his life space.<sup>1</sup>

#### Chronic Disorders

Chronic disorders include a variety of illnesses: tuberculosis, heart disease, endocrine and metabolic disorders, allergic disorders, Bright's disease, and others. Although children with chronic disorders are a heterogeneous group, there appears to be sufficient evidence to suggest that childhood illnesses, regardless of the nature of the disorders, tend to have some common psychological effects. General considerations in the study of the psychological aspects of any childhood illness include the effects of the disease itself regardless of the type, the effects of chronicity, the effects of hospitalization, and the effects of the family constellation. Newman indicates that these common psychological effects are more significant in the study of children than in the case of adults for whom the effects of specific illnesses far outweigh the effects of disease in general.<sup>2</sup>

Writers in the field indicate that research in this area may not be conclusive for few childhood diseases have been studied from this point of view. In addition, methods of obtaining data are not fool-proof. The very young child may not be sufficiently verbal to report his feelings and the memory of the older child or adult concerning his previous feelings may not be reliable. This is a field in which additional research is needed. However,

<sup>1</sup> William M. Cruickshank, "Psychological Considerations with Crippled Children and Youth," in Psychology of Exceptional Children and Youth, ed. William M. Cruickshank, (Englewood Cliffs, New Jersey: Prentice-Hall, Inc., 1955), p. 285.

<sup>2</sup> Joseph Newman, "Psychological Problems of Children and Youth with Chronic Medical Disorders," in Psychology of Exceptional Children and Youth, ed. William M. Cruickshank, (Englewood Cliffs, New Jersey: Prentice-Hall, Inc., 1955), p. 391.

the material to follow represents present thinking in terms of the situations and feelings which many chronically ill children seem to have in common. Because of the indicated similarities in psychological effects of all such illnesses, only one -- cardiac disabilities -- will be described in more detail.

General effects of chronic disorders. Authors writing in the field of chronic disorders agree that physical illness has its unique meaning to each child and to his parents. However, the common situations in which the children are placed as a result of illness do modify their environments, require adjustments, and restrict their life-space. Connor describes a whole constellation of factors which these children must face but which would not confront most non-handicapped children:

A majority of the children have spent time in hospitals away from home and parents; considerable attention has been focused on their defects and limitations; their activities have been curtailed thus reducing the opportunity for growth through active participation with the boys and girls; freedom and independence have been difficult; feelings of inadequacy and uncertainty are developed.<sup>1</sup>

When a child becomes ill, he may have little or no understanding of the many strange and new things that happen to him. In a study by Langford 90% of a group of hospitalized children believed that they were sick because they had been "bad." The majority of a group of children with rheumatic heart disease thought their illness was caused by disobedience. Eighteen out of 21 diabetic children said that they had eaten too much sugar. Ninety percent of a group of cardiac children related their illness to running too much.<sup>2</sup>

<sup>1</sup> Connor, op. cit., p. 511.

<sup>2</sup> W. S. Langford, "Physical Illness and Convalescence: Their Meaning to the Child," Journal of Pediatrics, 33 (1948), p. 243.



Another common reaction in most children is some degree of psychologic regression to an earlier level of emotional and social functioning. The severity of the emotional disturbance and the length of illness influence the degree of regression. In addition, it should be noted that the younger the child, the more quickly the regression occurs. Usually most recently acquired behavior, habits, and social techniques are the first to go.

Dependency reactions are another common reaction to illness. The child may try to perpetuate those infantile relationships to his environment which have been satisfying during the illness. Dependency states tend to persist where there is intense anxiety on the part of parents because of the illness of the child.<sup>1</sup> For other children parental over concern may lead to chronic invalid reactions long after there is need for realistic concern. In such a situation the child may become preoccupied with bodily functioning. Other children may blame the people around them for their illness and adopt rebellious behavior, possibly a denial of the presence of anxiety over the punishment which the child feels is inherent in the illness.

Carter and Chess investigated factors influencing the adjustment of organically handicapped children and concluded that the most significant factor in causing anxiety was the attitude of the parents. The parents' emotional needs and their attitude toward the child were more closely related to parental anxiety than were factors relating to the handicap. It was noted that the child whose parents were fearful and overprotective seemed less able to establish constructive relationships with his peers. However, the investigators were not able to predict any relationships between the amount of anxiety and the manner in which it was expressed or between the severity of the handicap and overprotection or underprotection

<sup>1</sup> Newman, *op. cit.*, p. 395.

of the child by the parent.<sup>1</sup>

Factors relating to the environment have significance in understanding the effects of illness. With the onset of illness, situations that were previously important "lose their potency," and the child's world becomes reduced in size as former determiners of behavior become ineffective. Barker and his associates write of the reduced scope of the child's world:

The things that influence the overt behavior of a person become limited to the requirements of a few people (doctor, nurse....), physical conditions (position of light, softness of bed), and the demands of a few needs (rest, physical comfort, absence of pain, food).<sup>2</sup>

The authors believe that the individual's world becomes remarkably like that of an infant, and the behavior also becomes infantile.

Other environmental influences are felt when the child learns his limitations, first, in the family constellation and, later, in the peer group. With his age-mates he becomes aware of his inability to compete and their attitudes toward his inadequacy, especially if attention is called to his physical defect through the use of nicknames. A factor relating to the child's internal environment, his energy level, is important in determining the nature of his responses to pressure, whether of a resistive or passive sort, and his ability to exert influence on his world. In discussing a child's adjustment to illness, it is important to note that a child faces a different kind of an adjustment from that of the adult since the past experiences which the child can use to solve his problem are limited, and he must rely to a greater degree on experimentation.<sup>3</sup>

<sup>1</sup> V. E. Carter and S. Chess, "Factors Influence the Adaptation of Organically Handicapped Children," *American Journal of Orthopsychiatry*, 21 (1951), p. 828.

<sup>2</sup> Barker, Wright, Meyerson, Gonick, *op. cit.*, p. 321.

<sup>3</sup> *Ibid*, p. 321.



Hospitalization is another area of adjustment for most chronically ill children. The child is forced to leave parents and home at a time when he is "handicapped by illness, confused, and anxious." Newman cites a study by Prugh and his colleagues in which they discovered that children under three years of age suffered more than children of other age levels since separation from home was more often interpreted as punishment by desertion. Among the older children anxiety was more often related to the experience itself rather than to the separation alone. It has been noted in this study that successful hospital adjustment was closely related to a satisfying relationship with the parents, especially the mother.<sup>1</sup>

Numerous indications have been cited of the potential problems that chronically ill children may face. The common reactions to illness in children, noted above, are prevalent among many children, but for others there may be constructive reactions. Some children respond to difficult situations in a constructive manner and illness may cause a minimum of emotional disturbance. "If illness is well handled and the child is stable and healthy emotionally, the illness may be a constructive growth experience."<sup>2</sup> It is noted, therefore, that even though the common base of prolonged abnormal physical condition and its treatment is recognized, it must be remembered that these children are individuals "with unique personalities, behavior patterns, abilities, and assets, as well as specific problems related to their disabilities."<sup>3</sup>

<sup>1</sup> Newman, op. cit., pp. 395-396.

<sup>2</sup> Ibid, p. 395.

<sup>3</sup> Connor, op. cit., p. 510.

An attempt has been made to cite some factors important to understanding the effects of chronic diseases among many children, factors that are more similar in each of the chronic illnesses than different, at least for the age groups up to adolescence. Because of the similarities in psychological effects of the various diseases, only one chronic disorder, cardiac disabilities, will be discussed.

Cardiac Disabilities. Heart disease actually involves a multitude of different and unrelated diseases, although all involve the heart. Disabilities among children are generally due to congenital defects or the results of rheumatic fever infection.<sup>1</sup>

Reiser and Bakst, writing on the psychology of cardiovascular disorders, see possible "psychological burden" stemming from three possible general sources: the symptom themselves -- breathlessness, pain, palpitation, dizziness; the threat inherent in the diagnosis; and the experience of physical limitation and the possible need for rearrangement of living patterns.<sup>2</sup>

Newman sees a major psychological impact stemming from "the apprehension of parents rather than from self-awareness except, of course, as children grow older." To support this point of view Newman refers to a typescript in which Holder reported the Rheumatic Fever Project carried on at the Massachusetts General Hospital. Holder concluded as follows: (1) during hospitalization, separation from the family was the most serious aspect of the experience of the child; (2) the nature of the parent-child

<sup>1</sup> Newman, op. cit., p. 408.

<sup>2</sup> Morton F. Reiser and Hyman Bakst, "Psychology of Cardiovascular Disorders," in American Handbook of Psychiatry, ed. Silvano Arieti, (New York: Basic Books, Inc., Publishers, 1959), pp. 665-666.

relationship prior to the illness greatly influenced how the child handled himself during the illness; (3) rheumatic fever is traumatic in that it lowers the child's capacity to withstand daily stresses because of the threats of potential dangers of heart damage and death communicated to the child by his parents.<sup>1</sup>

The demands of the pathological process present another psychological complication in the need for strict bed rest and only gradual resumption of activity, with emphasis on lessened participation, and the need for the child to learn to live within his limitations. Bauer reports on the attitudes of children with rheumatic fever and notes confusion among young patients who had difficulty comprehending the nature of heart disease.<sup>2</sup>

#### Summary

The material to follow serves to summarize the major ideas developed in relation to the four general categories of physical handicap discussed.

The perceptions of the hearing impaired child differ in kind from those of the normal child and, in turn, the life space is different for the child with this sensory deprivation. Because hearing orients the individual to his environment, promotes the recognition of relationships, and along with speech, has great significance in the development of interpersonal relations, impairment which reduces contact with the outside world affects all areas of the child's development. On the other hand, the psychological meaning that the deprivation has to the child and the use to which he puts the remaining senses will vary from individual to individual in terms of

<sup>1</sup>

Newman, *op. cit.*, pp. 411-412.

<sup>2</sup>

I. L. Bauer, "Attitudes of Children with Rheumatic Fever," *Journal of Pediatrics*, 50 (1951), p. 801.

the appraisals that significant people make of him, the skills and interests that he develops, the values that he internalizes, and the goals which are a significant part of his "becoming."

The child with impaired vision may rely on other senses to receive stimuli and orient himself to his environment. The blind use audition as the lead sense with vision as the basic supplementary sense. Several authorities suggest that for these children the world is structured differently than for sighted children. While experiences in some areas may be quite rich for these boys and girls, other experiences may be limited and the life space restricted. The nature of this restriction is determined by the severity of the impairment, the age of onset, and the psychological freedom which the individual has to develop his remaining faculties and reach out to meet his world.

Individuals with locomotor disabilities who are unable to move about freely and experience the environment fully, who cannot participate in the activities of the peer group, and who fail to develop physical skills may view the world differently and assume goals that are different from those of non-handicapped children. How a handicap affects a child will depend on the nature of his experiential and perceptual limitations, the attitudes of the significant people in his world, and the use he chooses to make of the skills and abilities that he has available in the light of the goals that he holds as significant.

Chronic disabilities may stem from numerous sources, exert influence for shorter or longer periods of time depending on the nature and severity of the disabilities, appear as punishment to the child, and limit his life space. Peer group participation is limited during long illness and even beyond its duration if there is potential danger of a recurrence of the illness. How well the child adjusts to his illness depends on how he views

himself, with his handicap as part of his self picture, depending in large measure on the ways in which others appraise him as a person and evaluate the contributions that he can make.

This chapter has served to complete the rationale for this study of the self reports of selected physically handicapped and non-handicapped students. Chapter II, "Rationale -- The Self Structure," and Chapter III, "Application of the Rationale to Various Categories of Physical Handicap," present the theoretical framework defining the role of perception and the concept of self in understanding the behavior of physically handicapped and non-handicapped students. It is noted that there is no special psychology for interpreting the behavior of children with handicaps. The position taken in this study is that all children have the same fundamental needs and face adjustments when these needs are not met. On the other hand, it is recognized that children with physical handicaps have different life experiences from non-handicapped children, and as they live and compete in a non-handicapped world, it is these differences to which they must adjust.

#### CHAPTER IV

##### REVIEW OF SELECTED RESEARCHES OF THE REPORTS OF SELF CONCEPTS OF CHILDREN

Research studies of recent years have investigated the self concept. A number have served to develop, clarify, and test the theoretical framework of the self theory and to develop and evaluate instruments for obtaining data. Much research of the self concept has been conducted with adult subjects, those selected from the larger population and those undergoing therapy in clinics. Research studies concerning the self concepts of children have been of lesser number, and those relating to physically handicapped children have been reported sporadically.

Perkins reviewed many self studies which contributed knowledge relating to the dimensions and qualities of the self concept and found adequate support for the validity of aspects of the self concept. A brief summary of his findings appears below:

Studies investigating the patterns of a subject's response to successive questions, response to analysis categories as "Who are you?", and significance of the slow rates of change during therapy revealed that persons with more stable self concepts evidenced better adjustment than those with less stable self concepts.

The literature gave evidence that the acceptance of self is positively and significantly related to acceptance of others.

Significant findings concerning self evaluation, the process by which self acceptance is achieved, were drawn from reported research. Self insight, found to be a valid indicator of later adjustment, depended more on the individuals making the ratings than on the characteristics being rated. Adequacy and success were found to be significantly related to the decrease in the discrepancy between aspiration and performance levels. Peer ratings were reliable and valid estimates of individual's performance on specific tasks.



Well adjusted individuals were able to register some dissatisfaction with themselves and indicate that they wished for change. Clients responding successfully to psycho-therapy evidenced greater changes in self concepts, greater congruency between the self and ideal self concepts, and greater self awareness than did clients who experienced less success in therapy.<sup>1</sup>

Numerous investigators have cited limitations in the reported studies of the handicapped. Meyerson, Rosenstein, Barker, and others recognized the discrepancies in the results and conclusions drawn from various investigations of handicapped children. Barker and his colleagues stated that many questionnaires and personality inventories contain items that have different interpretative significance for the physical deviate and the non-handicapped individual. They suggested that when pencil-and-paper instruments were used with handicapped children, the following factors be considered in the selection of an instrument and the interpretation of data: (1) appropriate vocabulary, (2) experiences realistic in terms of the handicapped child's life space, and (3) personal significance of the items to a person with a handicap.<sup>2</sup>

Rosenstein called attention to the lack of consistency in the results of studies of hearing impaired children.<sup>3</sup> Meyerson concluded from his reviews that the results of many studies did not permit generalizations beyond the specific group tested. For example, many studies of hearing

<sup>1</sup>Hugh V. Perkins, "A Study of Selected Factors Influencing Perceptions of and Changes in Children's Self-Concepts," (unpublished Doctor's Dissertation, New York University, 1956), pp. 82-133.

<sup>2</sup>Roger G. Barker, Beatrice A. Wright, Lee Meyerson, Mollie R. Gornick, Adjustment to Physical Handicap and Illness: A Survey of Social Psychology of Physique and Disability, (New York: Social Science Research Council, 1953), pp. 12, 153, 198, 285, 287.

<sup>3</sup>Joseph Rosenstein, "Perception, Cognition, and Language in Deaf Children — A Critical Analysis and Review of the Literature," Exceptional Children, 27:5 (January, 1961) pp. 276-285.

impaired children did not represent the universe of children with impaired hearing, because schools for the deaf, regular schools, and special classes appeared to enroll children with different group characteristics and for different purposes.<sup>1</sup>

Other limitations in the studies of handicapped children have been noted by this writer: lack of a control group in studies where this would have been appropriate, extremely small samples, and lack of adequate identification of subjects with mixed handicaps. In addition, it has been noted that many of the studies have been conducted in clinics, hospitals, and state institutions with fewer investigations having been made in special schools serving children with varied handicaps. Although there is increased interest among educators in the self concepts of school children and the implications of these self perceptions for effective school adjustment and adequate movement toward maximum self development, the field has not been fully explored. Studies of handicapped children, particularly those attending public schools, have been sporadic.

This chapter reports selected studies relating to the self concepts and the general adjustment of children. In addition some studies, not purporting to investigate self concepts, but which this writer identifies as investigating aspects of self concept, have been included. No attempt is made to draw generalizations from these studies, but the summary of this chapter may serve to indicate trends and point up needs for further study.

<sup>1</sup>Lee Meyerson, "Somatopsychology of Physical Disability," in Psychology of Exceptional Children and Youth, ed. William M. Cruickshank, (Englewood Cliffs, New Jersey: Prentice-Hall, Inc., 1955), pp. 138, 149.

### Studies of the Self Concepts of Children

Studies of the self concepts of children have been conducted with non-handicapped children and a lesser number have involved physically handicapped children. In the selected studies reviewed, those relating to handicapped children are so identified.

Accuracy of the self concept. Brandt focused his study on the accuracy of the self estimate, the degree to which students correctly rated their own abilities and social reputations. Subjects from three grade 6 and two grade 11 classes rated themselves in three academic areas and three areas of physical competence, and these self estimates were compared with the actual performances. In addition, students rated their peers on a social reputation test and judged their own social reputations.

The six abilities were rated with the same degree of success. Although boys tended to rate their abilities more accurately than girls, no significant differences were noted in the accuracy with which boys and girls estimated social reputation. Both boys and girls tended to overrate rather than underrate their abilities, but boys tended to overrate to a greater degree. Students accepted by their peers were more accurate in self estimates than those who were not accepted. A positive relationship between intelligence and accuracy of self rating tended to increase with age. Only a slight relationship was noted between performance ability and accuracy of self concept.

In addition, Brandt found a close similarity between the self ratings and self evaluative remarks noted in themes, interviews, and conversation and noted that between-individual variation in accuracy of self estimate was significantly greater than within-individual variation, indicating to him that "the self-concept is an organized and organizing dynamic within

personality structure."<sup>1</sup>

Stability of the self concept. If the self concept is organized and organizing, the question of its stability is a significant one. Katz investigated the stability of the self concept which he defined as the extent to which various areas of conceptualization were congruent and consistent. With 81 male high school seniors he used the Self-Rating Inventory of 20 traits with 6 successive ratings, each designed to yield a different index to stability of self concept: (1) temporal discrepancy, difference of self ratings on two administrations of the inventory, (2) affective discrepancy, difference between positive and negative self ratings, (3) peer discrepancy, difference between private and peer self ratings (4) mother discrepancy, difference between private and mother self ratings, (5) father discrepancy, difference between private and father self ratings, (6) inter-parent discrepancy, difference between father and mother self ratings.

Generally a high intercorrelation was found among the discrepancy measures. Two areas relating least significantly to the stability of the self concept were the accuracy of sociometric perceptions and the affective discrepancy index, although the investigator in his review of the literature, had found the latter to be closely associated with the stability of the self concept. The stability indices found to be most highly related to other variables were the subjects' self ratings and both the perceived father and mother ratings, illustrating the importance of introjected parental evaluation as a factor in the

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<sup>1</sup>Richard M. Brandt, "The Accuracy of Self-Estimate: A Measure of Self Concept Reality," Genetic Psychology Monographs, 58, (1958), pp. 55-99.

formation of a stable self concept.<sup>1</sup>

Both parents' and peers' perceptions of the individual's self concept were identified as factors positively related to the stability of the self concept in a study by Silver. Self rating and sociometric acceptance-rejection scales were completed by 56 male adolescents in a 7 to 12 grade rural school. The level and the stability of the self concept were found to be significantly related to parental acceptance, the perceived measure of peer acceptance, and the accuracy with which self was perceived as parents and peers perceived it.<sup>2</sup>

Perception of and changes in children's self concept. Selected factors influencing perceptions of and changes in children's self concepts in 8 classrooms in 7 schools, grades 4 and 6, were studied by Perkins. Data were obtained from a Q-Sort, sociometric questionnaire, California Achievement Tests, Withall's Climate Index, and the Reed Sentence Completion Test.

The most significant influence on the perceptions of and changes in self concepts was found to be the teachers' participation for three years in the University of Maryland program of child study. Greater similarity was found between the perceptions these participating teachers held of children's self concepts and those expressed by the children. In the classrooms of the child study participants greater similarity was noted

<sup>1</sup>Irving Stanely Katz, "A Study of the Stability of the Self Concept and Its Relationship to Sociometric Status and Sociometric Perception," (unpublished Doctor's Dissertation, Michigan State University, 1956), in Dissertation Abstracts, 19, pp. 877-878.

<sup>2</sup>Albert Wolfe Silver, "The Self Concept: Its Relations to Parental and Peer Acceptance," (unpublished Doctor's Dissertation, Michigan State University, 1958), in Dissertation Abstracts, 19, pp. 166-167.

between the peers' perceptions of children's self concepts and those expressed by the children, and there was greater congruency of self concepts and ideal self concepts for these students than for students in the classes of teachers who had not participated in the program.

In addition, the findings indicated that teachers were not superior to peers in perceiving children's self concepts. Teachers who were less acceptant of themselves and others achieved greater correspondence between their perceptions of and children's expressed self concepts than did teachers who were more acceptant of self and others. Peers in group-centered classrooms taught by child study participants showed greater accuracy in their perceptions of children's self concepts than did peers in teacher-centered classrooms taught by non-participants. It was also noted that peers were more able to estimate the "less threatening" percepts than the "more threatening" percepts. Girls registered significantly greater self and ideal self concept congruency than did boys, and increased congruency for both groups did not appear to be influenced significantly by changes in school achievement or peer acceptance.

Some positive relationships were found to increase through time: (1) the teachers' perceptions of children's self concepts and those expressed by the children and (2) the children's self concepts and ideal self concepts.<sup>1</sup>

Self and ideal self concept congruency. The congruency of the self concept and ideal self concept has been found to be positively and significantly correlated with adjustment. Hanlon, Hofstaetter, and

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O'Connor studied 78 boys in a parochial high school who performed a self sort and an ideal self sort and completed the California Test of Personality as a measure of adjustment. Congruence between the self concept and ideal self concept was found to be normally distributed, with an overall tendency toward congruency. The investigators concluded that the self-ideal congruence measure was adequate to evaluate personality adjustment. Maladjustment did not require that the self-ideal be negatively correlated, but an "r" of less than .27 was sufficient to indicate lack of adjustment.<sup>1</sup>

A similar conclusion was reached by Hawk in his investigation of the concept of self as a variable in adolescent behavior. Students sorted 32 items relating to four dimensions of self: self concept (I am), role behavior (I do), interpersonal competence (I relate to), and social control (I ought) with regard to four kinds of psychological orientations: intensional (personal), dependence (authority), extension (reality), and ambivalence (conflict). The boys and girls who saw themselves essentially as they would like to be expressed a significantly higher degree of self-confidence and less uncertainty about themselves than did the subjects with medium and high ego discrepancies.<sup>2</sup>

Self acceptance and adjustment. The relationship between self-acceptance and adjustment was investigated by Taylor and Combs. The California Test of Personality was administered to 205 rural school

<sup>1</sup> L. E. Hinkle, P. R. McFatter, and J. P. O'Connor, "Congruence of Self and Ideal in Relation to Personality Adjustment," *Journal of Consulting Psychology*, 12:4 (June, 1954), pp. 215-220.

<sup>2</sup> Gene Bruce Hawk, "Concept of Self as a Variable in Adolescent Behavior" (unpublished Master's Dissertation, University of Texas, 1954) in *Personality Studies*, 11, p. 211.

sixth-graders as a rough index of adjustment. Twenty "damaging" statements, as "I sometimes tell lies", were administered to determine how well the subjects could accept damaging statements about themselves. The upper 50% of the pupils, those indicating the better adjustment by higher scores on the California Test of Personality, checked a significantly greater number of damaging statements than did the lower 50%, indicating to the researchers that the well-adjusted person can accept all or most perceptions into his self concept.<sup>1</sup>

Significant people and self concept. The influence of relationships with significant people on the child's self concept has been explored. Carlson investigated the nature of parent-child relationships and the self concepts of 43 children in grade 6. The students completed a social reputation test and a self and ideal self sort. In addition, parents selected items from the latter device which, first, described for them the ideal child and, second, predicted their own children's self descriptions.

A positive and significant relationship was found between self acceptance and peer status. Social orientation, the extent to which one is predominately oriented toward social experiences in his self description, was found to be negatively related to self acceptance and peer status. Generally parents overappreciated boys and underappreciated girls. Children who showed a greater ideal congruence with the more supporting parent gave evidence of more self acceptance, less dependence on social relations, and more acceptance by peers than did the individuals showing greater congruence

<sup>1</sup> Charles Taylor and A. W. Combs, "Self-Acceptance and Adjustment," *Journal of Consulting Psychology*, 12:4 (April, 1954), pp. 89-92.

Well adjusted individuals were able to register some dissatisfaction with themselves and indicate that they wished for change. Clients responding successfully to psycho-therapy evidenced greater changes in self concepts, greater congruency between the self and ideal self concepts, and greater self awareness than did clients who experienced less success in therapy.<sup>1</sup>

Numerous investigators have cited limitations in the reported studies of the handicapped. Meyerson, Rosenstein, Barker, and others recognized the discrepancies in the results and conclusions drawn from various investigations of handicapped children. Barker and his colleagues stated that many questionnaires and personality inventories contain items that have different meanings for the physical deviate and the normal child. They suggested that when pencil-and-paper tests are used with children, the following factors must be considered: (1) the instrument and the interpretation of the results; (2) the experiences realistic and (3) personal adjustment. The consistency in the results of the studies of hearing children concluded from his studies do not permit generalizations to be made. In fact, many studies of hearing

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<sup>2</sup>Leon Travis Hawk, "Concept of Self as a Variable in Adolescent Behavior" (unpublished Doctor's Dissertation, University of Texas, 1958) in Dissertation Abstracts, 19, p. 1014.

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with the less supporting parent.<sup>1</sup>

In her study of the self concepts of girls aged 11, 14, 17, and 20 years, Roff used a Q-sort to reflect self image, ideal image, and image of the mother. Results indicated that self satisfaction declined continuously through adolescence until approximately age 20, when it rose slightly. The self concept was most severely shaken in later adolescence, approximately age 17, and it began to reintegrate through the remaining adolescent period. Ideal-mother identification remained high, declining sharply only at the end of this developmental period, suggesting that identification with the mother was not loosened significantly until the end of adolescence for these girls.<sup>2</sup>

Rate of physical maturation and self concept. Another dimension of the self concept was explored when Mussen and Jones investigated the relationship between the self concept and the rate of physical maturation of 17 year old boys. The Thematic Apperception Test was administered to 16 boys who were physically accelerated and 17 boys who were physically retarded. The authors of the study concluded that the retarded boys revealed more negative self concepts with feelings of inadequacy and rejection, prolonged dependency needs, and rebellious attitudes toward parents. No differences were noted between the two groups in need for achievement or personal recognition.<sup>3</sup>

<sup>1</sup>Betty Rae Carlson, "Parent Child Relations and the Self-Concept of Children," (unpublished Doctor's Dissertation, University of Michigan, 1958), in Dissertation Abstracts, 19, p. 1436.

<sup>2</sup>Catherine Roff, "The Self-Concept of Adolescent Girls," (unpublished Doctor's Dissertation, Boston University Graduate School, 1959), in Dissertation Abstracts, 20, pp. 385-386.

<sup>3</sup>Paul H. Mussen and Mary C. Jones, "Self-Conceptions, Motivation, and Interpersonal Attitudes of Late and Early-Maturing Boys," Child Development 28:2 (June, 1957), pp. 243-256.

Self concepts of crippled children. Two studies which are reviewed here have attempted to determine the nature of the self concepts of crippled children. Cruickshank used a sentence completion test to gain insight into the self concepts of crippled children and to understand their evaluation of the impact of the handicap on their adjustment. The study involved 264 orthopedically handicapped secondary school students in 6 cities and 400 non-handicapped students matched on sex and chronological age.

The investigator noted that the non-handicapped children generally expressed positive and negative feelings while the handicapped children made a significant number of neutral, ambivalent, or nonsensical responses and omissions. He interpreted the results as follows:

The physically handicapped, because of their markedly limited or curtailed opportunities for broad socializing experiences, are frequently unable to make the appropriate responses or are unable to verbalize personalized self-expression and self concepts. Thus their responses take the form of neutral statements.<sup>1</sup>

However, from the responses made, Cruickshank concluded that the handicapped adolescents demonstrated better relations with the mother than the father, had an interest in comparing themselves with others, indicated a tendency to withdraw from social relations, showed fewer normal adolescent interests, exhibited more immaturity than those of comparable age and sex, received the impact of their physical handicaps from adults rather than peers, expressed a wish to compensate for their limited scope of behavior, and showed a drive for acceptance.<sup>2</sup>

<sup>1</sup>William M. Cruickshank, "Psychological Considerations with Crippled Children," in Psychology of Exceptional Children and Youth, ed. William M. Cruickshank, (Englewood Cliffs, New Jersey: Prentice-Hall, Inc., 1955), p. 305

<sup>2</sup>Ibid., pp. 301-315.



Using a sample of 18 crippled adolescents in a special school and an equated group from a regular school, Krider investigated the congruency of self and ideal self concepts. Both groups of students evidenced some congruency, although the more severely disabled in the experimental group tended toward a more negative concept of self and less self concept and ideal self congruency. In spite of this, however, as a group the crippled children did not show a significantly wider, more varied, or more negative range of self concepts, nor did they show less acceptance of self than did the non-crippled.<sup>1</sup>

Academic achievement and self concept. Numerous studies have attempted to relate the nature of the self concept to the quality of academic achievement. The relationship of the self concepts, ideal self concepts, and achievement of two grade 9 classes was investigated by Chickering through the use of a Q-sort, teacher ratings on effort, and achievement tests. An inverse relationship between academic achievement and the discrepancy between actual and ideal self concept was noted. The ideal self concepts of underachievers and overachievers were more similar than the actual self concepts indicating that the relation between school achievement and the discrepancy between actual and ideal self concepts related to differences in actual self concept rather than ideal self concept.<sup>2</sup>

<sup>1</sup>Mary Althea Krider, "A Comparative Study of the Self Concept of Crippled and Non-Crippled Children," (unpublished Doctor's Dissertation, Wayne State University, 1959), in Dissertation Abstracts, 20, pp. 728-729

<sup>2</sup>Arthur W. Chickering, "Self Concept and Ideal Self Concept and Achievement," (unpublished Doctor's Dissertation, Colorado University, 1958), in Dissertation Abstracts, 19, p. 164.

For the boys at the fourth grade level Guthrie compared selected aspects of the self concept of "efficient" academic achievers with "inefficient" achievers, differentiated in terms of those whose "educational age" as measured by standardized tests was one year above the "mental age" and those whose "educational age" was one year below the "mental age". The Picture-Story Test, designed to elicit stories from which self perceptions could be inferred in the areas of home, school, peer relations, and parent relations, revealed that both groups held a greater number of negative perceptions than positive or neutral ones. No significant difference was noted between the number of each type of perception held by the two groups on any variable, but there was a trend for the "inefficient" achievers to evidence stronger negative feelings on all variables. Although teachers judged the "efficient" achievers to be emotionally healthier, there was no significant correlation in this study between the judgments of the teachers and the perceptions of the students themselves.<sup>1</sup>

Shaw and his associates found that adolescent male underachievers held negative self concepts. Their study focused on the self concepts of bright underachieving high school students with intelligence scores of 113 and above and underachieving in terms of the cumulative grade point average of 1.75 and below. On the Sarbin Adjustment Checklist of 200 items each student checked those characteristic of him. The male underachievers revealed more negative feelings about themselves than the

<sup>1</sup>Fain A. Guthrie, "A Comparison of Selected Aspects of Self Concept and Certain other Personality Characteristics of 'Efficient' vs 'Inefficient' Academic Achievers in the Fourth Grade," (unpublished Doctor's Dissertation, University of Florida, 1960), Dissertation Abstracts, 21, p. 1846.

male achievers while the female underachievers tended to be ambivalent with regard to feelings toward themselves. It was suggested that the girls who were underachievers probably saw themselves both negatively and positively as they evidenced confusion regarding the feminine role. Although significant differences were noted in the self concepts of the achievers and nonachievers, the investigators concluded that they could not determine from this study whether the differences in self concepts were the cause or the result of achievement or underachievement.<sup>1</sup>

Bodwin sought to relate immaturity in self concept and reading and arithmetic disabilities. Maturity of self concept, defined in terms of self confidence, freedom to express appropriate feelings, liking for one's self, satisfaction with one's attainments, and feelings of personal appreciation by others, was evaluated by the Draw-a-Person Test. Three hundred subjects in grades 3 and 6, one-third of whom had reading disabilities, one-third with arithmetic disabilities, and the remainder of the group with no educational disabilities, participated in the study. A significant relationship was noted between the immature self concept and both reading and arithmetic disabilities, and this relationship was greater at the third grade level than at the sixth.<sup>2</sup>

Bruck, in a companion study to the above, investigated age differences in relation to self concept and grade point average in grades 3, 6, and 11 and noted: (1) a positive and significant relation was found to exist

<sup>1</sup>Merville Shaw, Kenneth Edson, and Hugh M. Bell, "The Self-Concept of Bright Underachieving High School Students," The Personnel and Guidance Journal, 39:3 (November, 1939), pp. 193-196.

<sup>2</sup>Raymond Franklin Bodwin, "The Relationship Between the Immature Self Concept and Certain Educational Disabilities," (unpublished Doctor's Dissertation, Michigan State University, 1957), Dissertation Abstracts, 19, pp. 1645-1646.

between self concept and grade-point average at each grade level, and (2) age differences were significant in the relation between self concept and grade-point achievement when the investigator compared early elementary and senior high students and later elementary and senior high school students but no significant difference was noted in this relation between early and late elementary school subjects.<sup>1</sup>

The effects of levels of aspiration of children, ages 9 to 12 years, in grades 4, 5, and 6, judged successful and unsuccessful in academic progress were studied by Sears. Three groups of 12 children, matched on chronological age, mental age, and sex, were described as follows: (1) the "success" group, academically successful in all areas, (2) the "failure" group without consistent signs of success, and (3) the "differential" group, successful in reading but not successful in arithmetic. For each group discrepancy scores were determined by the differences between the performance time required for answering a reading or arithmetic item and the number of seconds the children set as the goal for completing the next item. The children performed in neutral and experimentally-created success and failure situations.

In the neutral situation the investigator found that the "failure" subjects tended to have the highest discrepancy scores in the questions relating to the reading material. Middle discrepancy scores were noted for the largest number of subjects in the "success" and "differential" groups. Sears noted that induced success and failure seemed to have the same general effect as a similar long-continued past experience. Data

<sup>1</sup>Max Bruck, "A Study of Age Differences and Sex Differences in the Relationship Between Self Concept and Grade Point Average," (unpublished Doctor's Dissertation, Michigan State University), in Dissertation Abstracts, 19, p. 1646.



were interpreted to indicate that accuracy of the self evaluation increased with success.<sup>1</sup>

#### Studies of the Adjustment of Handicapped Children

Included in this section are studies related to the adjustment of handicapped children. Although the investigators do not identify these researches specifically as studies of the self concept, their use of "adjustment" as a factor in determining behavior places these studies within the realm of the self concept.

Children with vision and hearing impairments. Studies of the adjustment of children with vision and hearing impairments have employed numerous techniques, involved a variety of populations, and reached various conclusions. In an early study, Pintner concluded that over 400 children with partial sight in sight-saving classes generally showed no marked differences in adjustment when compared to seeing children, using data obtained from Aspects of Personality Test and Pupil Portrait Test, printed in large type.<sup>2</sup> Hastings administered the California Test of Personality and the Mental Health Analysis orally to the blind and by pencil and paper to the seeing and found that the handicapped students were more disturbed, with more mental health liabilities. However, he noted no significant differences between the two groups on the social adjustment scale or mental health assets. These results are questionable, however, because the sighted and blind students were not matched on age, sex, intelligence, academic achievement, and

<sup>1</sup>Pauline Sears, "Aspiration and Academic Success," Journal of Abnormal and Social Psychology, 35:10 (October, 1940), pp. 498, 536.

<sup>2</sup>R. Pintner and G. Forlano, "Personality Tests of Partially Sighted Children," Journal of Applied Psychology, 27:6 (June, 1943), pp. 283-287.

institutionalization.<sup>1</sup> Morgan found more personality and social maladjustment in adolescent boys and girls in a school for the blind than for a group of matched sighted students in a regular school as revealed by the Personal Index of Loofbourow and Keys. Students with more residual sight showed more signs of maladjustment than the totally blind.<sup>2</sup>

Lowenfeld reported the study of the blind in which Sommers concluded from the results of the California Test of Personality, questionnaires, and controlled interviews that emotional disturbance and maladjustment developed more frequently from environmental factors than from the sensory handicap. His study also revealed that the vision impaired students missed sports, car driving, traveling, and sights of nature; they worried about the future; they wanted to be treated like seeing people, without pity and understood for their feelings and problems.<sup>3</sup>

Reviews of studies relating to children with vision impairment have yielded significant information. From his investigation of the literature, Lowenfeld concluded that blind adolescents as a group showed a somewhat higher incidence of personal and social maladjustment than seeing groups. He noted that parental and environmental attitudes tended to be the most important elements in causing any differences which were found between blind and seeing adolescents but indicated that other factors played a role. Because the blind adolescent could not see, he was confronted with

<sup>1</sup>Barker, Wright, Meyerson, and Gonick, op. cit., pp. 300-301.

<sup>2</sup>Marian Breckenridge and E. Lee Vincent, Child Development, (Philadelphia: W. B. Saunders and Company, 1950), p. 90.

<sup>3</sup>Berthold Lowenfeld, "Problems of Children with Impaired Vision," in Psychology of Exceptional Children and Youth, ed. William M. Cruickshank, (Englewood Cliffs, New Jersey: Prentice-Hall, Inc., 1955), pp. 214-283.



some special problems in areas in which visual experiences played a dominant role: sex curiosity, dating, mobility, and concern for the future.<sup>1</sup>

Barker and his associates reviewed available studies and stated their conclusions relating to individuals with vision impairment: (1) attitudes toward blindness among non-handicapped persons were found to be uniformly negative but were not unfavorable to blind people; (2) parents of blind children and persons who work with the blind frequently had conflicting attitudes toward the children which resulted in inconsistent behavior on the part of the adults; (3) on personality inventories the blind tended more often to score in the "maladjusted" range and to be more socially mature than normal children; (4) a mild visual impairment was probably not crucial for behavior; (5) the personality characteristics of the individual that existed prior to the time that the vision became impaired were important; and (6) individuals with the same degree of defective vision could display many different personality patterns.<sup>2</sup>

McAndrew reported an investigation of behavioral rigidity in 25 deaf, 25 blind, and 25 non-handicapped children equated on chronological age and mental age. Rigidity was viewed as a lack of variability and adaptability, resulting in persistent repetition or continuation of an activity and interfering with adjustment to small changes in a situation as revealed in tests of level of aspiration and restructuring by classification. More rigidity was noted among the blind and deaf than the normal, but wide individual variations were noted in each group. The blind were more

<sup>1</sup>Berthold Lowenfeld, "The Blind Adolescent in a Seeing World," Exceptional Children, 25:7 (March, 1959), pp. 310-315.

<sup>2</sup>Barker, Wright, Meyerson and Gonick, op. cit., p. 289.

rigid than the non-handicapped, and the deaf showed greater rigidity than either of the other two groups. The blind appeared to be more sensitive to failure than the sighted. The investigator concluded:

All of the data suggest that the deaf and the blind have smaller life spaces than the normal, being partially isolated from the objective environments in which they live by the barrier qualities of their handicap; and that they, therefore, develop less differentiated and more rigid personalities.<sup>1</sup>

Barker and his colleagues reviewed the research prior to 1953 and noted that adjustment scores of hearing impaired children were not significantly correlated with the degree of hearing loss, duration of the loss, age of onset, chronological age, or hours of lip-reading instruction. They saw adjustment related to intelligence, full use of residual hearing and presence of other deaf members of the family. However, a study reviewed later in this chapter refutes the last factor.<sup>2</sup>

Children with crippling conditions. Several studies of children with crippling conditions are reported. In New York City an investigation was made of the social and emotional adjustment of children with orthopedic limitations excluding severe cases of cerebral palsy, drawn from special classes of grades 5 and 8. The subjects were approximately evenly divided among cerebral palsy, postpolio, and miscellaneous orthopedic difficulties.

The group of grade 8 pupils was studied through a teacher rating scale, The Rorschach Psychodiagnostic Technique, and individual interviews conducted by the psychologist. The social worker studied relationships within

<sup>1</sup>H. McAndrew, "Rigidity in the Deaf and the Blind," Journal of Social Issues, 4:4 (Fall, 1948), pp. 72-77.

<sup>2</sup>Barker, Wright, Meyerson, and Gonick, op. cit., p. 234.

the family. It was noted that these students were generally interested in school. They indicated concern about bodily impairments. The individuals who showed "good" or "fair" acceptance of their handicaps tended to reach out for help. They revealed the need to participate with physically normal children, and although the group appeared to be normally social in outlook and experience, when their activities were evaluated, they were frequently found to be solitary in nature. Loneliness was a problem about which many children felt sensitive and tended to protect themselves by denying the problem. The cerebral palsied children were especially isolated. The adjustment ratings of the cerebral palsied were considerably lower than those for other children with orthopedic handicaps. It was also noted that good adjustment tended to be associated with high intelligence.

The grade 5 children were rated by teachers and were interviewed and tested individually by psychological instruments. As investigators sought to discover the personality dynamics underlying behavior, problems in three areas were revealed. A brief summary of their findings appears below:

Slow and clumsy movement requiring a great expenditure of energy in pain and discomfort, disfigurement of the body affecting physical appearance and dress, less opportunity to explore and experiment, and limited participation in active recreational activities

Prevalence of learning problems among the cerebral palsied, absence among many children of "appropriate" goals and ambitions with lack of insight into capacities and limitations, lack of interest in school progress for some children

Uneven effort and application in school with evidences of moodiness and restlessness, inability to compete normally for many accustomed goals, distortion of relations with adults, isolation from children's physical activities, reliance on siblings in

the absence of normal friendships, school placement as a handicap in establishing social relations.<sup>1</sup>

Eighty hospitalized children with a mean age of 13.3 years, 50 patients with scoliosis and 30 with osteomyelitis, were interviewed with their parents, observed directly in the hospital, and evaluated by means of the Stanford-Binet-Test, Porteus Maze Test, Kent Oral Emergency Test, Vineland Social Maturity Scale, and Rogers' Test of Adjustment. Kammerer concluded from this study as follows: (1) crippling had no unique influence on a child's behavior; (2) maladjustment seemed more related to the number and severity of children's problems than to the presence of crippling; (3) and the degree of impairment and cosmetic appearance were of more significance than the etiology of the disorder.<sup>2</sup>

By means of the Rorschach Ink Blot Test, Wenar compared 30 physically handicapped adolescents needing professional guidance of a psychological nature with 20 non-handicapped adolescents also in need of professional help. He found no evidence that the handicapped were more disturbed and concluded that physical handicap and psychological disturbance could not be equated, for the disability must be placed in a context of the personality as a whole and regarded as a very important stress that the child must master. His success in mastery depended on the same factors which determined his success in coping with other stresses.<sup>3</sup>

<sup>1</sup>J. Wayne Wrightstone, Joseph Justman, and Sue Moskowitz, The Child With Orthopedic Limitations, (New York City Board of Education, Bureau of Educational Research, 1954), pp. 1-132.

<sup>2</sup>R. C. Kammerer, "An Exploratory Psychological Study of Crippled Children," Psychological Record, 4:3 (October, 1940), pp. 47-100.

<sup>3</sup>Charles Wenar, "The Degree of Psychological Disturbance in Handicapped Youth," Exceptional Children, 24:1 (September, 1958), pp. 7-10, 15.

Two reviews of the literature are cited. As a result of his studies, Cruickshank found that the adjustment of physically handicapped and non-handicapped children were fundamentally the same, but the insertion of a physical and visible defect into the life space of a child constituted a factor of adjustment that was not present for the non-handicapped individual. However, the way in which a disability was handled varied from person to person.<sup>1</sup>

Barker, Wright, Meyerson, and Gonick reviewed studies which revealed that handicapped individuals tended to be less well adjusted than the non-handicapped and showed more withdrawal, hypersensitivity, and overinhibited behavior. The influence of family relations on the developing personality was recognized. In addition, these authors concluded from the studies reviewed that the motor handicap itself tended to distort the ideal of self.<sup>2</sup>

Children with cardiac involvements. The adjustment of children with cardiac involvements has been studied. Reed examined aspects of intelligence, social maturity, personal adjustment, manipulative skill, and parental attitudes experienced by 50 children with heart diseases. Data were collected from medical histories, Stanford-Binet Test, Vineland Social Maturity Scale, Sequin Form Board, Parent Attitude Research Instrument, and clinical judgment. These 3 to 8 year old children were matched with non-handicapped children on age, sex, socio-economic status, and number of siblings.

No significant differences were found between the two groups in intelligence quotients, social quotients, or ratings of adjustment. Neither I.Q.

<sup>1</sup>Cruickshank, op. cit., p. 300.

<sup>2</sup>Barker, Wright, Meyerson, and Gonick, op. cit., p. 57.

nor S.Q. were significantly related to severity of handicap. However, the clinical group revealed greater social anxiety and perceptiveness, more eagerness to please the examiner, slower movement, and greater variability in response on the Sequin Form Board than the non-handicapped group. The control group appeared more relaxed but less responsive to social-interaction cues. No significant differences between the characteristics of the mothers of boys were noted, but the mothers of girls in the clinical group did score higher on "intrusiveness" and "fostering dependency."<sup>1</sup>

As a part of a larger study of handicapped children in junior and senior high schools, Cruickshank matched, on age and sex, 71 of the handicapped children having cardiac disabilities with a non-handicapped group. On a sentence-completion test of 32 items, the cardiac child gave responses more like those of the non-handicapped child than the handicapped child. Generally the physically handicapped individual indicated a better relationship with the mother who was the source of assistance and comfort, while the cardiac child and the non-handicapped child tended to indicate a better relationship with the father, suggesting that the mother was a symbol of restraint. The cardiac and non-handicapped children were judged more able to evaluate their parental relationships and their general adjustment than were the crippled children. On the other hand, both the cardiac and the crippled children evidenced fear of their handicaps.

Cruickshank found support in this study for the significance of the fact that the handicap of the cardiac child is a socially hidden handicap:

<sup>1</sup>Murray K. Reed, "Intelligence, Social Maturity, Personal Adjustment, Physical Development and Parent-Child Relations of Children with Congenital Heart Disease," (unpublished Doctor's Dissertation, 1958), in Dissertation Abstracts, 20, p. 385.



From an external point of view nothing in the visible picture serves to set this child apart from others. Insofar as society is concerned, the child is seen as normal....Thus he operates as a normal individual. It is only when the defect becomes a visible one that the handicap<sup>1</sup> per se begins to have a serious impact on the adjustment process.

The children with cardiac involvements saw themselves differently from crippled children for whom a physical and visible defect had been inserted into their life space.<sup>2</sup>

A New York City study of children with cardiac limitations enrolled in special classes revealed through projective techniques and other test devices administered by specialists that these students disliked restrictions on activity; resented segregation at school which made them feel "different;" saw themselves as adequate and not unlike "normal" children; tended to reveal hostility, anxiety, and feelings of low self-esteem. Withdrawal behavior was noted, and these children tended to be unresponsive, lacking in initiative, unmotivated to use intellectual capacity adequately, and emotionally immature with daydreaming and brooding noted. Generally they had few friends and tended not to engage in organized play activities.

Teachers rated these same children more favorably than did the specialists in the following areas: relationships with parents and classmates, attitude toward group control, and adjustment to handicap. Low ratings were assigned to these areas: leadership, work habits, nervous habits, self confidence, and responsibility. Teachers saw these children as aggressive rather than withdrawing. In addition, it was noted that

<sup>1</sup>Cruickshank, *op. cit.*, p. 317.

<sup>2</sup>*Ibid.*, pp. 300-317.

achievement tests revealed levels below those of non-handicapped children at the same grade level.<sup>1</sup>

Brazelton and his associates reported a study conducted at the Massachusetts General Hospital where 20 children with rheumatic fever and their mothers were studied for 1 1/2 years. As a result of the illness, a portion of the children had developed heart disease and others had not, but all were treated as if they actually had heart disease. No significant differences in psychological reactions were noted among the two groups. Nearly all the children evidenced feelings of guilt for having become ill and felt deserted by their parents during the time that they were separated from home. The nature of parent-child relations was cited as having a significant influence on the way the child was able to handle his illness. The more disturbed mother created anxiety in her child while the less anxious mother gave her child assurance. Where prior adjustment to life had been an effective one, the children's reaction to rheumatic fever was minimal, whereas in those children who had previously shown evidences of emotional disturbance, the reaction was more marked.<sup>2</sup>

#### Studies Concerning Factors Related to the Self Concepts of Handicapped Children

The rationale in previous chapters has identified a number of factors

<sup>1</sup>Committee for the Study of the Care and Education of Physically Handicapped Children, Report of Children with Physical Handicap, Report No. 3, Cardiac Classes and the Care of Cardiac Children, (New York: Public School of the City of New York, 1955), pp. 35-48.

<sup>2</sup>T. Berry Brazelton, Richmond Holder and Beatrice Talbot, "Emotional Aspects of Rheumatic Fever in Children," Journal of Pediatrics, 43:4 (July-December, 1953), p. 354.

as significant to the self perceptions of individuals: physical organism; significant people; capacities, abilities, and skills; objects, situation, and events which hold meaning for the child; and techniques of adjustment. Studies relating to these factors are reviewed below.

Physical organism. Differing points of view regarding the value of the drawing of the human figure as a projective technique have been noted in the literature. Machover was among the early investigators of the significance of figure drawings and concluded that unconscious determinants relating to the body-image were projected. She saw the basic personality of the individual, the degree of disability, and the duration of disease as factors influencing the individual's projection.<sup>1</sup> However, she recognized that what was projected could have other interpretations. For example, the distortion or omission of a limb in a drawing could result from crippling anxieties as well as from physical crippling.<sup>2</sup>

Silverstein and Robinson conducted a study in selected public schools in Baltimore City involving 22 chronic poliomyelitis cases with paralytic residuals and 44 non-handicapped children matched on sex, age, and intelligence. Same sex, opposite sex, and self-figure drawings were obtained and judged by the authors and by three post doctoral clinical psychologists experienced in the psychodiagnostic use of figure drawings. The drawings were studied by three different methods to determine whether the physical disability were reflected:

Inspection of the figure drawings of the disabled indicated that more than three-quarters of the subjects gave some representation of their disability.

<sup>1</sup>Karen Machover, Personality Projection in the Drawings of the Human Figure, (Springfield, Illinois: Charles C. Thomas, 1949), p. 20.

<sup>2</sup>Ibid., p. 263.

Comparison of the drawings with those of matched normal groups showed a non-significant number of differences.

Judges experienced in the psychodiagnostic use of such drawings were unable to differentiate drawings of the disabled and normal subjects at a level better than chance.

Using research in the field the authors attempted to explain the negative results. Harris and Goodenough cast doubt on whether children really did project the body image in drawn figures or whether they expressed their concept formation and understanding. Levy suggested that not every drawing is a projection of the body image or one's concept of himself but could be a projection of other factors: attitudes toward others, ideal self-image, attitude toward the examiner, result of external circumstances, or expression of emotional tone. He noted that any one drawing was usually a combination of these influences.<sup>1</sup>

Two studies using other projective techniques with crippled children are described below. Broida, Izard, and Cruickshank analyzed the Symonds Picture-Story Test for 30 children with cerebral palsy, rheumatic fever, and poliomyelitis who were attending a public school for exceptional children and found no stories involving crippled or handicapped persons. However, a concern for economic independence was frequently expressed.<sup>2</sup> Greenbaum and his associates administered the Bachrach and Thompson Modification of the Murray Thematic Apperception Test, including

<sup>1</sup>A. B. Silverstein and N. A. Robinson, "The Representation of Orthopedic Disability in Children's Figure Drawings," (Baltimore, Maryland: Psychiatric Institute, University of Maryland Medical School, 1955), pp. 1-19. (Typescript)

<sup>2</sup>D. C. Broida, C. E. Izard and W. M. Cruickshank, "Thematic Apperception Reactions of Crippled Children," Journal of Clinical Psychology, 6:3 (July, 1950), pp. 243-248.

such symbols of physical disability as braces and wheel chairs, and found that introducing the handicap into the stimulus pictures reduced productivity on the part of the handicapped child.<sup>1</sup>

Buell studied the motor performance of visually handicapped students. Although the visually impaired tended to perform at a lower level than the seeing children, in no one factor-- body control, standing balance, coordination, or agility-- did they consistently fall below the sighted. After intensive training, the visually defective high school boys excelled the seeing boys in the standing broad jump. Boys tended to perform better than girls. The partially sighted performed better than the blind in running, throwing, and the girls' broadjump. Blind students performed least well in two stunts of balance in which they found it difficult to judge the distance of the upper part of the body from the floor. Parental overprotection had a negative influence on performance in track, field events, and stunts, and students neglected by their parents performed better than the overprotected.<sup>2</sup>

Barker and his associates reported the study of Ray who centered his investigation on the effect of crippled appearance on personality judgment by others. Students were presented with six photographs of college boys to be ranked according to behavior and personality characteristics. It was noted that when an individual was presented to one-half of the

<sup>1</sup>M. Greenbaum, T. Qualtere, B. Garruth, and W. M. Cruickshank, "Evaluation of a Modification of the Thematic Apperception Test for Use with Physically Handicapped Children," Journal of Clinical Psychology, 9:1 (January, 1953) pp. 40-44.

<sup>2</sup>Charles E. Buell, Motor Performance of Visually Handicapped Children, (Ann Arbor, Michigan: Edward Brothers, Inc., 1950), pp. 1-123.

students as crippled in a wheel chair, he was judged as being more conscientious, having greater feelings of inferiority, making better grades, being more even tempered, being more religious, making a better class president, liking parties less, and being more unhappy than the same subject was judged by the remaining students when he was presented without any apparent handicap.<sup>1</sup>

Two studies reflect other attitudes toward the physically handicapped individual. When Orgel and Tuckman studied the nicknames of children in an orphanage, it was noted that over 30% of the nicknames referred to physical defects and practically all of the nicknames were derogatory.<sup>2</sup> Barker and his associates found that over 4% of 7000 jokes studied concerned physical defects, and 80% of these depicted a physically disabled person.<sup>3</sup>

Significant people. The nature of the handicapped child's relationships with members of the family and peers has been the subject of numerous investigations.

Whether the adjustment of an acoustically handicapped child is aided by the presence in the home of other members with hearing impairments has been a topic for discussion in the literature. In an early study, in schools for the deaf, Pintner and Brunschwig concluded that deaf children made better adjustments, received greater understanding, and developed stronger feelings of group membership in homes containing one or more deaf

<sup>1</sup>Barker, Wright, Mayerson, Gomick, op. cit., p. 71

<sup>2</sup>Ibid., p. 72.

<sup>3</sup>Ibid., p. 75.



persons than in families with no other deaf members.<sup>1</sup> Barker has stated a similar conclusion.<sup>2</sup>

In a recent study in a state school, Brill investigated the adjustment of deaf children (1) those with deaf parent, (2) those with hearing parents and deaf siblings, and (3) those with no history of deaf relatives. Four adults from the school rated the adjustment of the children on a five-point scale. No significant differences were noted in the adjustment of the three groups of students, although children with deaf parents and deaf siblings had more ratings at both extremes of the scale than children from homes containing only one deaf person.

Subsequent study by Brill using social case work procedures revealed social and/or psychological maladjustment in over one-half of the families in which one or both parents had communication handicaps. Although the presence of a deaf parent might have the advantages of closer parent-child communication and less likelihood of parental rejection, the social pathology in many of the homes as result of the parent's handicap appeared to offset these advantages.<sup>3</sup>

The work of Sommers has been recognized as contributing significant information concerning the attitudes of parents of blind adolescents. From case records and parent interviews, the investigator recognized four prevalent attitudes of parents toward the blindness of their children: a symbol of punishment, feelings of being suspected of social disease, feelings of guilt, and feelings of personal disgrace. Where parents had

<sup>1</sup>Loc. cit.

<sup>2</sup>Ibid., pp. 231-232.

<sup>3</sup>Richard G. Brill, "A Study in Adjustment -- Three Groups of Deaf Children," *Exceptional Children*, 26:9 (May, 1960), pp. 464-466, 474.

"accepted" the blindness of their children, generally it was a matter of having overcome such negative reactions and developing attitudes of acceptance.<sup>1</sup>

Five different reactions to their children were noted among the 50 parents studied: (1) acceptance of the child and his handicap by 9 parents, (2) denial reaction by 4 parents, (3) overprotection by 13 parents, (4) disguised rejection by 16 parents, and (5) overt rejection by 8 parents. Lowenfeld noted that the items used by Sommers in his classification of parental attitudes were very similar to those proposed by the child psychiatrist, Leo Kanner, for parents of children in general.<sup>2</sup>

In another investigation Sommers studied 120 adolescent blind subjects, living in residential schools, to determine their attitudes toward their situations and their families. The blind subjects and sighted adolescents in a matched control group completed a questionnaire and illustrated each answer. In comparison with the sighted, a significantly larger proportion of the blind subjects reported that they did not have as good a time at home as did their brothers and sisters. A smaller proportion of the blind felt that they were less favored than other children in the family, and a still smaller proportion thought their brothers and sisters perceived them as being favored in the family. The blind subjects indicated that the experiences they missed most were social activities and

<sup>1</sup>Barker, Wright, Meyerson, Gonick, *op. cit.*, p. 279.

<sup>2</sup>Lowenfeld, *op. cit.*, pp. 255-259.

contacts with seeing persons.<sup>1</sup>

Numerous researches have been conducted to investigate the interpersonal relations of children handicapped by crippling. The majority of these studies relate to children with the multi-handicapping disability of cerebral palsy. In a medical clinic Gates studied the social and emotional adjustment of 14 to 23 year old subjects with crippling disabilities and compared their test results and autobiographical reports with those of a matched group of non-handicapped persons. Tests did not reveal any significant differences between the two groups, but a study of the autobiographies indicated to Gates that personal-social relations in the home affected adjustment more than the crippling condition.<sup>2</sup>

Miller's study made in a Guidance Clinic involved 7 to 12 year olds, the majority of whom were cerebral palsied and all of whom were considered severe behavior problems at home and school. She gathered data from a battery of psychological and projective tests from which she concluded: (1) parent-child relationships appeared to be an important factor in the maladjustment of the child; (2) the handicap was not the basic problem but may have triggered the problem; (3) the mildly handicapped child had more serious problems as a result of disturbed parent-child relations than the severely handicapped; (4) emotional responses were similar for the handicapped and non-handicapped child.<sup>3</sup>

<sup>1</sup>Ibid., pp. 254-255

<sup>2</sup>Mary F. Gates, "A Comparative Study of Some Problems of Social and Emotional Adjustment of Crippled and Non-Crippled Girls and Boys," *Journal of Genetic Psychology*, 68:2 (June, 1946), pp. 219-244.

<sup>3</sup>Elsa A. Miller, "Cerebral Palsied Children and Their Parents," *Exceptional Children*, 24:7 (March, 1958), pp. 298-302, 305.

Abrams administered the California Test of Personality to selected cerebral palsied children, ages 9 to 12 years, who were attending a public school for the handicapped. A control group of non-handicapped students was matched on age, sex, and intelligence. The handicapped children scored better than "normal adjustment" in all test categories except "Freedom from Withdrawal Tendencies" and "Family Relations". As a result of interviewing the subjects, observing behavior, and studying case histories, Abrams concluded that "environmental family situations and parental attitudes were major factors in the formation of dominant personality tendencies and serious deviation."<sup>1</sup>

Barker reported the study by Allen and Pearson of 12 children hospitalized with severe disabilities, ages 4 to 15 years. Through observation and study of case material, the investigators found evidences that behavior difficulties arose, not directly from the physical disability, but from the child's response to the parent's inconsistent behavior as she cared for his physical needs but resented the burden and her outright rejection or her overprotection.<sup>2</sup>

Studies have been made to learn whether parents with cerebral palsied children differed from parents with non-handicapped children. Berbeck used the California F Scale, Taylor Scale of Manifest Anxiety, and Parent Attitude Research Instrument and found no significant differences in the attitudes of the two groups of fathers. The attitudes of the experimental group of mothers revealed more marital tensions, greater manifest anxiety, more suppression of interpersonal distance, and greater demand

<sup>1</sup>Dorothy Frances Abrams, "Comparative Study of Dominant Personality of Selected Cerebral Palsied and Selected Physically Normal Children," (unpublished Doctor's Dissertation, New York University, 1957) in *Dissertation Abstracts*, 19, pp. 167-168.

<sup>2</sup>Barker, Wright, Mayerson, Gonick, *op. cit.*, pp. 67, 112.

for striving than did the attitudes of the control mothers. Generally the attitudes of both parents of cerebral palsied children tended to improve with increased levels of education.<sup>1</sup>

Boles conducted a similar experiment involving mothers of cerebral palsied children from which he concluded that these mothers were characterized overprotective and maritally conflicted as correlates of having a cerebral palsied child. Mothers of both cerebral palsied and non-handicapped children evidenced anxiety, guilt, rejection, and unrealistic attitudes. Protestant mothers of both groups were the least anxious and least socially withdrawn. Catholic mothers had more guilt and more unrealistic expectations than Jewish mothers. Jewish mothers provided more social opportunities for their handicapped children.<sup>2</sup>

Bice classified 250 quotations gathered from group counseling sessions according to the type of parental attitude revealed toward children with cerebral palsy. His study revealed that 74% of the comments were negative in nature, ranging from mild forms of rejection to frank expression of death wishes.<sup>3</sup>

Twin studies have contributed information concerning parent-child relationships. Shere studied 30 pairs of twins, ages 18 months to 16 years, one twin of each pair having cerebral palsy. Data were gathered from the Vineland Maturity Scale, Fels Child Behavior Scales, and Fels

<sup>1</sup>Herbert Evans Berbeck, "Parental Attitudes in Families Where Cerebral Palsy is Present," (unpublished Doctor's Dissertation, State University of Iowa, 1960), in Dissertation Abstracts, 21, p. 1840.

<sup>2</sup>Glen Boles, "Personality Factors in Mothers of Cerebral Palsied Children," (unpublished Doctor's Dissertation, Colorado University, 1957), in Dissertation Abstracts, 17, p. 893.

<sup>3</sup>Harry Bice, "Some Factors that Contribute to the Concept of Self in the Child with Cerebral Palsy," Mental Hygiene, 38:1 (January, 1954), pp. 120-131.

Appraisal of Parent Behavior. A brief summary of her conclusions follows:

The parents tended to understand the potentialities and problems of the cerebral palsied twins and get along with them with a minimum of friction. The non-handicapped twins were expected to assume responsibilities beyond what their age would warrant: their problems passed unnoticed; and parents were unaware that these children felt unfairly treated. For the non-cerebral palsied twin, his behavior and the disciplinary friction with the parents tended to be suggestive of the rejected child.

The non-handicapped twin had a place in family activities, was helped and protected when necessary and was encouraged to explore and be independent. The cerebral palsied twin tended to be overprotected and had little or no part in forming family policies, and his parents directed his activities in a loving but arbitrary manner.

The non-handicapped twin was more curious and ready to explore. The handicapped twin was more cheerful and less resistant to authority, less easily excited, not as sensitive to flattery or disparagement, and not unduly jealous.

Shere saw in her study indications that, even though the behavior of parents might be equally desirable toward both twins, if the non-handicapped twin contrasted the parents' behavior toward him with the emotional behavior they exhibited toward his cerebral palsied twin, he exhibited behavior indicative of a rejected child. The personality differences between the twins appeared to stem from the parent-child relationships rather than from factors inherent in the cerebral palsy. However, the cerebral palsy was a factor that disturbed the parent-child relationships and led the parents to have different expectations for the two children.<sup>1</sup>

Klapper and Werner studied a small population of three pairs of identical twins and reached conclusions similar to those arrived at by Shere. In addition, this study identified specific provisions which

<sup>1</sup>Wm. M. Cruickshank and Harry V. Bice, "Personality Characteristics," in Cerebral Palsy, Its Individual and Community Problems, ed. William M. Cruickshank and George M. Raus, (Syracuse: Syracuse University Press, 1955), pp. 118-120.



parents made for the cerebral palsied twin: (1) additional parental attention as a result of retarded physical development, (2) special clinical facilities, and (3) special nursery school placement. These investigators found the cerebral palsied twin to be less tolerant of frustration, more readily distressed by difficult tasks, and less persistent<sup>1</sup> in efforts than his non-handicapped twin.

Two studies of the peer group acceptance of handicapped children are reviewed here. Force's investigation of the social status of physically handicapped children included 63 handicapped and 361 physically normal children in 14 elementary classes in three schools in which handicapped and non-handicapped pupils were educated together. On the basis of choices of friends, playmates, and workmates, the investigator found that the physically handicapped students generally were not as well accepted as were the non-handicapped children. He concluded that few physically handicapped children have enough positive assets to offset completely the negative effect of being labelled as handicapped by normal peers. When the handicapped child was well accepted, he showed evidence of many desirable social traits. Force found that the problem of status and acceptance existed for the handicapped youngster when he was as young as 6 years of age.<sup>2</sup>

Elser used sociometric devices to investigate the social position of hearing handicapped children in regular classes, grades 3 through 7.

<sup>1</sup>Z. S. Klapper and H. Werner, "Developmental Deviations in Brain-Injured (Cerebral Palsied) Members of Pairs of Identical Twins," Quarterly Journal of Child Behavior, 2:3 (March, 1950), pp. 288-313.

<sup>2</sup>Dewey G. Force, "Social Status of Physically Handicapped Children," Exceptional Children, 23:3 (December, 1956), pp. 104-107, 132.

Although there were 9 hearing children who were more rejected than the 45 handicapped children, the data revealed that the handicapped as a group were not as well accepted as the hearing children.<sup>1</sup>

Capacities, abilities, and skills. Investigations of physically handicapped children in this area have dealt mainly with intelligence. Intelligence is the function of the factors which control the richness, extent, and availability of perceptions in the perceptual field and is reflected in capacity for effective behavior. Inherent in intelligence is the learning aptitude or the potential for acquiring and retaining symbols and using these in meaningful communication. Full assessment of intelligence of students involves the interpretation of appropriate tests, case studies, social studies, medical reports, and full educational histories.<sup>2,3</sup>

Generalizations cannot be made from test scores concerning the intelligence of the physically handicapped as a group for several reasons:

- (1) serious study is necessary to devise instruments that can evaluate with accuracy the conceptualization processes and overcome the problems involved in communication;
- (2) except for brain-centered central nervous system involvements, it has not been established that organic pathology does play a significant part in the lowering of basic learning capacities;
- (3) it has been difficult to screen from the testing situation the

<sup>1</sup>Roger R. Elser, "The Social Position of Hearing Handicapped Children in Regular Grades," Exceptional Children, 25:7 (March, 1959), pp. 305, 309.

<sup>2</sup>Combs and Snygg, op. cit., pp. 190-193, 214, 219, 221.

<sup>3</sup>T. Ernest Newland, "Exceptional Children: Psychological Assessment," in William M. Cruickshank, Psychology of Exceptional Children and Youth, (Englewood Cliffs, New Jersey: Prentice-Hall, Inc., 1955), pp. 79-80.

influence of cultural deprivation and emotional overlay; (4) the children in any one classification of handicap do not constitute a homogeneous group; (5) generally studies have failed to investigate representative groups of handicapped and non-handicapped children. Although sound research is needed to make intelligence testing more scientific, current knowledge can aid in understanding the handicapped child and in planning social and educational experiences.<sup>1</sup>

An Ohio survey revealed that the average I.Q. of children with cerebral palsy, muscular dystrophy, and hydrocephalus was in the dull-normal range, and children with other orthopedic handicaps scored in the normal range.<sup>2</sup> Phillips, Berman, and Hanson found that the Stanford-Binet differentiated intelligence scores before and after polio. The experimental group showed a 1.5 point decrement from the mean of prepolio, and the control group scored a gain of 2 points. The clinical type of polio, rather than the length of hospitalization, was significantly related to the amount of intelligence deficit.<sup>3</sup>

Neuromuscularly impaired children were found to function at a level of 10 to 15 I.Q. points lower than their established intelligence quotients. Slow and inaccurate eye and hand movements and the energy

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<sup>1</sup>Ibid., pp. 80, 87, 91, 115-116.

<sup>2</sup>Frances P. Connor, "The Education of Crippled Children," in Education of Exceptional Children and Youth, ed. William M. Cruickshank and G. Orville Johnson, (Englewood Cliffs, New Jersey: Prentice-Hall, 1958), pp. 429-497.

<sup>3</sup>E. L. Philipps, Isabel R. Berman, and H. E. Hanson, "Intelligence and Personality Factors Associated with Poliomyelitis Among School-Age Children," Child Development Monographs 12:2 (1947), p. 432

expenditure required in all physical activity tended to slow down performance.<sup>1</sup> Recent investigations have revealed no significant differences between the major classifications of cerebral palsy or sexes with respect to intelligence.<sup>2</sup>

A New York City Study indicated that students with cardiac involvements tended to score in the low average group but recognized that for these children the physical handicap limited opportunities for social and intellectual stimulation.<sup>3</sup>

Lowenfeld reported a lack of studies of the intelligence of representative groups of partially seeing children and no adequate reports on educational achievement.<sup>4</sup> It has been suggested, however, that vision impaired children received about as much school information as seeing children but tended to be 2 years older than seeing children in the same grade.<sup>5</sup> Another report indicated that children, visually impaired from early childhood, had distorted visual perception which tended to result in educational retardation.<sup>6</sup>

Numerous studies have failed to find that hearing impaired children scored significantly below the general school population on appropriately

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<sup>1</sup>Ibid., pp. 431, 437.

<sup>2</sup>Combs and Snygg, op. cit., p. 321.

<sup>3</sup>Connor, op. cit., p. 510.

<sup>4</sup>Ibid., pp. 230-231.

<sup>5</sup>Lowenfeld, op. cit., p. 274.

<sup>6</sup>Fredericka Bertram, "The Education of Partially Sighted," in Education of Exceptional Children and Youth, ed. William M. Cruickshank and G. Orville Johnson, (Englewood Cliffs, New Jersey: Prentice-Hall, Inc., 1958), pp. 265-294.

selected tests of intelligence.<sup>1</sup> Meyerson found inconsistent results when he reviewed the "major studies" in this area. Of 26 studies of the scores made by deaf and hearing children on individual performance tests, 11 investigations indicated that the deaf scored lower than the hearing children; in 12 studies no significant differences were noted; and 3 investigations rated the deaf higher than the hearing in intelligence. Retardation in educational achievement was general and accumulated to 3 to 5 years, with the deaf having more retardation than the hard of hearing.<sup>2</sup>

Myklebust reached similar conclusions regarding the lower correlation between intelligence scores and academic achievement for the hearing impaired as compared to hearing children but found no significant differences in intelligence among the impaired regardless of the degree of deafness or the age of onset. However, identical scores for the handicapped and non-handicapped were not interpreted to mean identical mental processes.<sup>3</sup>

Reference has been made to Buell's study of the motor abilities of visually handicapped students.<sup>4</sup> No studies of the capacities, abilities, and skills of handicapped children in specific areas of daily living have

<sup>1</sup>Charlotte B. Avery, "The Education of Children with Impaired Hearing," in Education of Exceptional Children and Youth, ed. William M. Cruickshank and G. Orville Johnson, (Englewood Cliffs, New Jersey: Prentice-Hall, Inc., 1958), pp. 265-294.

<sup>2</sup>Meyerson, op. cit., pp. 133-134.

<sup>3</sup>Myklebust, op. cit., p. 97.

<sup>4</sup>Buell, loc. cit.

been located.

Objects, situations, and events meaningful to the child. Goal-setting and reaction of handicapped children to frustration have been areas for investigation. Lange studied 40 subjects, aged 5 to 21 years, with congenital handicaps that were generally orthopedic in nature. The Rosenzweig Picture Frustration Study was administered orally to most of the subjects. Lange found no basic differences in frustration reactions between the congenital and acquired groups.<sup>1</sup>

Smock and Cruickshank reached different conclusions using the same instrument, the Rosenzweig Picture Frustration Study, administered to 30 handicapped children, matched on age, sex, and intelligence. The handicapped group consisted of 15 orthopedically handicapped, 10 cardiac children, 2 with partial sight, and 2 hearing-impaired. The investigators concluded that the handicapped group responded to frustration in terms of its ego-threat value. Non-handicapped children centered attention on the resolution of the problem and tended to react to frustration more in terms of the interference with a specific need or immediate goal activity. The handicapped child, on the other hand, tended to ignore the barrier to need satisfaction standing in his way and projected blame and hostility on the agent of frustration.<sup>2</sup>

Kahn investigated the relationships between hearing loss and response to frustration. He used the Rosenzweig Picture Frustration Study and the

<sup>1</sup>Patricia Lange, "Frustration Reactions of Physically Handicapped Children," Exceptional Children, 25:8 (April, 1959), pp. 355-357.

<sup>2</sup>C. Smock, and Wm. M. Cruickshank, "Responses of Handicapped and Normal Children to the Rosenzweig Study," Quarterly Journal of Child Behavior, 4:2 (February, 1952), pp. 156-164.



Block Design Frustration Technique with three groups of 15 children, each group differing in degree of hearing acuity, and a control group of hearing children. Few differences were noted between the groups in their responses to frustration, but these differences appeared to indicate a consistent tendency for hearing impaired children to meet frustration more constructively than the non-handicapped group. Kahn concluded that the "widely held assumptions" that hearing impaired children evidenced low frustration-tolerance or subnormal emotional stability were not supported by his study. However, he did note that the hearing impaired subjects differed from other children in the conventionality of their responses, which indicated to him "better than normal social maturity."<sup>1</sup>

Motivation or attitude toward a task was seen by Holden as one aspect of a much larger framework, that of the child's outlook on himself and his relation to the world, or, as described by the investigator, his adjustment. In his study of the motivation, adjustment, and anxiety of cerebral palsied children, Holden used as subjects 35 nursery school children with cerebral palsy, ages 3 to 6 years. Each child was rated on a five-point scale and a check list by the teacher, occupational therapist, and physical therapist.

Without exception children judged as poorly motivated were rated as poorly adjusted and highly anxious. Of the 28 children studied 74% were rated as average or high in motivation. It was recognized that the relationship of motivation to adjustment was not one-to-one in all

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<sup>1</sup>Harris Kahn, "Responses of Hard of Hearing and Normal Hearing Children to Frustration," Exceptional Children, 24:4 (December, 1957), pp. 155-159.

instances, in the sense that high motivation necessarily went with good adjustment, for strong motivation could express a compulsive need for mastery. However, in his study Holden found a highly significant correlation between ratings of high motivation and good progress either in physical improvement or better social adjustment.<sup>1</sup>

To test the hypothesis that the goals of the handicapped child differed significantly from those of the non-handicapped, Wenar studied 12 subjects with no motor handicap, 12 with a mild congenital handicap, and 12 with a severe congenital handicap, ranging in age from 8 to 10 years and average or above in intelligence. On five trials at the peg board, records were kept of each child's level of aspiration as well as the score actually achieved in the time allotted.

In the early trials the handicapped children did not set any significantly higher or lower goals than the non-handicapped children. However, the non-handicapped individuals gradually decreased the discrepancy between their goals and achievements by adjusting the goal. On the other hand, the handicapped groups were characterized by (1) a decrease in the initial height of the goal by the severely handicapped and (2) after an initial decrease in discrepancy, a reversal trend to setting higher goals. Wenar concluded that the non-handicapped children had a realistic attitude toward performance and tended to adjust their goals so that their aspiration and performance levels tended to agree, but the handicapped children performed without realistic critical evaluation. ".... with a difficult motor task the handicapped child

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<sup>1</sup>Raymond H. Holden, "Motivation, Adjustment and Anxiety of Cerebral Palsy Children," Exceptional Children, 24:7 (March, 1958), pp. 313-316.

can maintain a realistic goal for only a limited time and then the attitude shifts to what he would like to be able to do rather than capable of doing.<sup>1</sup>

Harway reached similar conclusions in her study of 80 orthopedically handicapped and 40 non-handicapped children matched on age, sex, and mental age. She used a letter-symbol substitution task and the Rotter Aspiration Board to determine the extent to which children were able to evaluate their capacities and set goals consistent with their capacities. Results indicated that the handicapped children tended to use an unrealistic and over-ambitious approach in both test situations.<sup>2</sup>

Techniques of adjustment. Several studies have explored the mechanisms of adjustment used by physically handicapped children. Reference has been made to the report Lowenfeld made of Sommers's study of blind adolescents using the California Test of Personality, questionnaires, and controlled interviews. As one part of his study Sommers identified six patterns of adjustive behavior used by the subjects: (1) wholesome compensatory reaction, (2) hypercompensatory reaction, (3) denial reaction, (4) defensive reaction, (5) withdrawal reaction, and (6) non-adjustive behavior. Sommers saw the first five as patterns permitting some reduction of emotional tension and some type of adjustment to the environment and considered the last pattern strictly nonadjustive.<sup>3</sup>

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<sup>1</sup>Wenar, loc. cit.

<sup>2</sup>V. T. Harway, "Self Evaluation and Reactions to Success and Failure Experiences in Orthopedically Handicapped Children," (unpublished Doctor's Dissertation, University of Rochester, 1952), in Dissertation Abstracts, 18, p. 1062.

<sup>3</sup>Lowenfeld, op. cit., pp. 254-259.

Breithaupt found significant differences in the type and direction of reaction to frustration among orthopedically handicapped children in hospitals and a matched group of non-handicapped individuals. Data gathered from a variety of tests and hospital records indicated that the experimental group gave higher extrapunitive and ego-defense reactions to frustration and evidenced fewer intropunitive and need-persistence types of response. These children were more concerned than the non-handicapped with defense against external threat to the ego, tended to respond to frustrating situations by showing irritation with what blocked them, increasing their demands upon others to solve problems for them, or being overtly hostile toward some person present in the frustrating situation.<sup>1</sup> These results support those of Smock and Cruickshank, cited previously in this chapter.<sup>2</sup>

Children with congenital and acquired orthopedic handicaps, ages 10 to 16 years, were studied by Kimmel through the use of case material and projective tests. The two groups were equated on age, sex, intelligence, and severity of involvement. No significant differences were revealed in problems relating to family, school, social relations, or attitude toward the handicap, but the "acquired group" showed greater body confidence and body esteem than the "congenital group."

"The "acquired group" evidenced ability to handle anxiety in appropriate ways, and there appeared to be no relation between age of onset of

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<sup>1</sup>Jack F. Breithaupt, "Affects of Intelligence and Orthopedic Handicap Upon Selected Personality Variables," (unpublished Doctor's Dissertation, Indiana University, 1960), in Dissertation Abstracts, 21, p. 545.

<sup>2</sup>Smock and Cruickshank, loc. cit.

disability and lack of confidence or anxiety. As a group those who were handicapped since birth revealed feelings of insufficiency and anxiety and used projection to a greater extent than did the "acquired group." Cerebral palsied children showed a significantly greater use of "flight from the self" as a defense against anxiety than did the other children in the "congenital group."<sup>1</sup>

Mussen and Newman sought to discover factors significantly related to the child's general acceptance of a physical defect. Fifteen handicapped children in grades 1 to 6, rated high in personality characteristics, were matched with 15 rated low in personality traits. The Thematic Apperception Test and original stories were scored for dependency and achievement needs. The poorly adjusted students scored high on achievement needs while the well adjusted had high scores on measures of dependency needs. A great number of the well adjusted had strong needs for aggression, generally expressed in fantasy. The investigators concluded that the handicapped child's personal adjustment seemed to be enhanced by his acceptance of dependency needs and by aspiration for goals realistic for him rather "the usual goals."<sup>2</sup>

Fifteen boys and 15 girls, ages 13 to 18 years, moderately or severely disabled for more than 3 years, were equated with 30 non-handicapped control subjects. The Thematic Apperception Test, Kent-Shakow

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<sup>1</sup>James Kimmel, "A Comparison of Children with Congenital and Acquired Orthopedic Handicaps on Certain Personality Characteristics," (unpublished Doctor's Dissertation, New York University, 1958), in Dissertation Abstracts, 21, p. 545.

<sup>2</sup>Paul H. Mussen and David K. Newman, "Acceptance of Handicap, Motivation, and Adjustment in Physical Disabled Children," Exceptional Children, 24:6 (February, 1958), pp. 255-60, 277-278.

Form Board Series, and interviews were used to gather data regarding aggression and dependency reactions to failure and evidence in the family situation of overprotection or rejection. Generally the disabled subjects were reported to be more overprotected. The control boys and the handicapped girls revealed more aggressive reactions than the other groups, but no significant differences among the groups were noted in reaction to failure. Fitzgerald interpreted the reactions of the handicapped subjects in terms of the inability of the boys to carry out the usual male role while physical dependency for the girls did not conflict with the feminine role to the same degree.<sup>1</sup>

#### Summary

The literature includes investigations of the self concept of children and a lesser number of studies relating to the self concepts of handicapped children.

Factors relating to the physical organism have been significantly related to the way in which the child sees himself. The degree to which a handicap was visible was recognized as a significant factor. The severity of the handicap and cosmetic appearance were found to be more important to the child's adjustment than the etiology of the disability. On the other hand, children with a "socially hidden" handicap, such as a cardiac involvement, were found to have psychological characteristics more like non-handicapped boys and girls than the crippled children with whom they are often officially classified. Results of the investigations of the influences of acquired and congenital orthopedic handicaps have

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<sup>1</sup>D. C. Fitzgerald, "Success-Failure and T. A. T. Reaction of Orthopedically Handicapped and Physically Normal Adolescents," Personality, 1, (1951), pp. 67-83.



not been conclusive. The degree of handicap appeared significant as mildly handicapped children, rather than the severely disabled, were found to have more problems in parent-child relationships. Related to this were the results of twin studies in which the non-handicapped twin had greater problems in parental relationships and felt more rejected than his cerebral palsied twin who was the recipient of more time, attention, and special considerations.

Several studies of the significance of figure drawings have cast doubt as to whether children projected their feelings about their handicaps and suggested that a whole complex of factors might operate. Related to this are the results of other studies which indicated that children did not make references to their crippling conditions in their stories, and pictures including symbols of physical handicap did not increase the projection of their feelings in this area.

The most extensive research with the greatest consistency in conclusions has been in the area of the child's relations with significant people. How others saw the child and related to him have been found to correlate significantly with the child's view of himself. This concept is particularly significant for handicapped children in the light of findings which indicated that disabled persons were perceived differently from the non-handicapped. The level and stability of the self concept were found to relate significantly to parental acceptance and to the accuracy with which the self was perceived as parents and peers perceived it. Personality tendencies and deviations resulted from the child's response to parental attitude. The presence of a handicap was not found to be the basic problem although it frequently triggered problems in relationships.

Although crippled children have been seen as receiving the impact of their handicap from adults rather than peers, the importance of peer relationships cannot be denied. The peer group was able to perceive the self concepts of its members, especially for those precepts that were judged less threatening. Self acceptance has been positively related to peer status. This is significant in the light of studies of the peer relations of children with orthopedic disabilities and hearing and vision impairments which revealed that handicapped students were less accepted than the non-handicapped.

There was no conclusive evidence in the literature that physically handicapped children, except for those with brain-centered central nervous system involvements, deviated from the normal range in intelligence, but there was more general agreement that they achieved less well educationally than their non-handicapped agemates. This is a significant factor in the light of several researches. Studies have revealed that accuracy of self evaluation increased with success: "inefficient" achievers were found to reveal more negative self concepts than "efficient" achievers; positive and significant relationships have been noted between self concept and grade point average; and an inverse relationship was discovered between academic achievement and discrepancy in actual and ideal self concepts.

Several studies investigated the motivations and goal-setting of handicapped students. Generally, orthopedically handicapped children set unrealistic and overambitious goals, with a tendency to set goals to what they would like to do rather than what they were capable of doing. It was noted in the research that handicapped and non-handicapped children approached problems differently. While the non-handicapped group tended

to identify and attack directly the barrier creating the problem, the handicapped children responded to frustration by ignoring the barrier, projecting blame and hostility on the agent of frustration, and increasing their demands on others to solve their problems for them.

Many studies have offered clues to the techniques of adjustment employed by handicapped children. There appeared to be agreement that physical handicap and psychological disturbance could not be equated. The handicap of a child must be placed in the context of the personality as a whole and recognized as a stress with which he must work. The manner in which he handled himself was found to be determined by the same factors influencing his approach to other problems, and maladjustment did not stem directly from a disability but rather from the number and severity of the child's problems. As with non-handicapped children, those who saw themselves essentially as they would like to be experienced greater self-confidence and less uncertainty about themselves.

Although problems of adjustment cannot be viewed as direct results of a handicapping condition, the presence of a handicap was found to influence the perceptions that others had of a handicapped individual and the nature of his interpersonal relationships. Therefore, it has been recognized that the handicapped face the same kinds of problems as the non-handicapped, but, in addition, must cope with the barriers to experiences and relationships that are not present for the non-handicapped child.

Crippled children have been described as withdrawing from social relations, being immature, and possessing a drive for acceptance. Many of the activities of these children were solitary in nature. Loneliness was found to be a characteristic but was frequently denied by these students. In test situations the children tended toward ambivalence and

neutrality in their responses, suggesting limited social experiences and inability to verbalize personalized information. Several studies indicated that the better adjusted orthopedically handicapped subjects accepted their dependency needs, reached out for help, and aspired to realistic rather than the "usual" goals, but the poorly adjusted scored high on achievement needs.

Hospital studies of children with cardiac involvements have indicated that the patients felt guilty for being ill and believed themselves to be rejected by their parents during the hospital stay. The nature of the parent-child relationship was found to be the most significant factor in determining how the child handled his illness. For the most part those children with good adjustment prior to their illness had a minimal reaction. In other studies clinicians saw these boys and girls as withdrawn, but teachers described them as aggressive. Both groups of evaluators recognized evidences of lack of self confidence and initiative and lack of motivation to use intellectual capacities fully.

Results of the investigations of the factors relating to the adjustment of hearing impaired children are not conclusive. Some studies have indicated that degree of loss, duration of loss, age of onset, or hours of lip reading instruction are not significantly correlated with adjustment. Other research has suggested that intelligence, full use of residual hearing, and presence of other impaired members in the family were significant, although a recent study refutes the latter. Hearing impaired children have been judged as having more fears than the non-handicapped. To one researcher differences in the conventionality of the responses of hearing impaired children to frustration indicated better than normal social maturity.

Both the hearing impaired and the vision impaired have evidenced more rigidity in behavior than children without handicaps, with the deaf being more rigid than either the blind or the non-handicapped. It was noted that both the deaf and blind had smaller life spaces, were somewhat isolated from the environment by the barrier quality of their handicap, resulting in less differentiated and more rigid behavior. Environmental factors had a closer relationship to emotional disturbance and maladjustment than the sensory handicap, although special problems were recognized in daily-life situations in which the use of the sense was necessary. For example, vision impaired adolescents were found to have problems relating to social relations including dating, mobility, and concern for the future. Several studies indicated that the blind possessed more liabilities to mental health than the sighted. Two investigations concluded that the personality characteristics of the partially sighted were not significantly different from that of the sighted, but another study found that individuals with more residual sight had more signs of maladjustment than the totally blind.

The above summary is not intended to cite generalizations but to summarize aspects of the research concerning the self concepts of children, especially handicapped children. In few areas do the results appear to be conclusive, indicating the great need for further research in the areas of behavior, adjustment, and self concepts of physically handicapped children.

## CHAPTER V

### THE RESEARCH DESIGN

#### Type of Research

The aforesaid purpose of this investigation was to study the ways in which physically handicapped and non-handicapped pupils differed in the characteristics and qualities which they ascribed to themselves. To this end the research sought to study (1) the self reports of physically handicapped and matched non-handicapped children, (2) the self reports of students in various categories of handicap, and (3) the self concept and ideal self concept congruency among handicapped and non-handicapped students.

The sample consisted of a testable school population of physically handicapped children and a matched group of non-handicapped students selected from 7 elementary and junior high schools of Baltimore, Maryland. In this study random selection of groups was not feasible. The treatments related to significant differences in terms of (1) the self reports of the experimental and control groups, (2) the self reports of children in the various categories of handicap, and (3) the reported self concept and ideal self concept congruencies of handicapped and non-handicapped children.

#### Selection of the Sample

The procedures followed in selecting the control and experimental groups are described below.

Experimental group. The experimental group consisted of selected boys and girls from the William S. Baer School for the Physically Handicapped in Baltimore, Maryland. This public school serves the educable physically



handicapped population of Baltimore and, currently, an adjoining county. The school population consists of those children from nursery school age through grade 9 whose physical handicaps prevent their use of community schools but who can make academic, social, and emotional growth in the protected environment, the small classes, and a situation in which the therapies are designed to meet individual needs.

The total school population could not be included in the research. It was assumed by the investigator that children in grade 4 and above had sufficient maturity to report the self concept with insight and understanding. Two pencil-and-paper instruments used in the investigation, Mental Health Analysis<sup>1, 2</sup> and The Q-sort,<sup>3</sup> were designed for children with a minimum school placement of a grade 4 level. It was further assumed that a criterion of at least a 4.0 score on a standardized reading test would be adequate for the effective use of the instruments. Some children in grades 4 and 5 and those in the Hearing Impaired Department were eliminated because of lack of sufficient reading facility. Severely involved cerebral palsied children who could not hold pencils to write and could not speak clearly enough for the tester to obtain oral responses readily were also omitted. Six handicapped children originally slated for the study could not participate due to hospitalization (1), long term absence (3), withdrawal from school (1), and lack of sufficient emotional stability to

<sup>1</sup> Louis P. Thorpe, Willis W. Clark, and Ernest W. Tiegs, Mental Health Analysis, Elementary, Grades 4-8, (Los Angeles, California: California Test Bureau, 1959).

<sup>2</sup> Ibid, (Manual), p. 17.

<sup>3</sup> Hugh V. Perkins, A Study of Selected Factors Influencing Perceptions of and Changes in Children's Self Concepts, unpublished Doctor's dissertation, (New York University, 1956), pp. 164-181.

complete the test (1). Therefore, the experimental group included all children in grades 4-9 in the William S. Baer School who could be tested by the two instruments selected for this research.

Generally the handicaps of the 72 students in the experimental group were hearing impairment, vision impairment, severe and moderate motor disabilities, non-visible handicaps necessitating restriction in activity, and involvements affecting appearance more than general function. A breakdown of these disabilities by the classifications used in this study and by medical diagnoses, is found in Table 1.

The specific diagnoses of the handicapped students were obtained from the school medical records. For the purpose of this study the investigator classified the diagnoses in terms of the effects of the disabilities, as observed in the child, on (1) the use of sensory stimuli available in the environment, (2) mobility affecting the accessibility of varied daily experiences and skill development, and (3) appearance. Because of the subjective nature of such a classification, the investigator sought the judgments of the school nurse, pupil personnel worker, special assistant, department head for the hearing impaired classes, resource teacher for the vision impaired children, and classroom teachers.

Control group. The control group was matched on six variables -- sex, race, socio-economic level, grade, intelligence quotient, and reading level. These children were selected by the investigator from information contained in the school records from 3 elementary schools in the northeastern, northwestern, and southwestern sections of the city; 1 combined elementary-junior high school in north Baltimore; and 3 junior high schools in the southwestern, northwestern, and northeastern areas. Original plans had included the use of a school in southeast Baltimore, but a change of administration

Table 1. Handicaps Represented in the Experimental Group

Classification	Diagnosis	N
Hearing impairment	Moderate impairment	6
	Severe impairment	6
Vision impairment	Legally blind	5
	Partial vision	1
Mild leg, no support	Hemiplegia	1
	Spastic paraplegia	2
	Post polio	2
	Muscular dystrophy (non-progressive)	1
Leg involvement, mild, non-visible support	Amputee	1
	Post polio	3
	Spastic paraplegia	1
	Spastic triplegia	1
Leg involvement, crutches	Legg Perthes disease	2
	Spinal cord injury	1
	Post polio	3
Leg involvement, not ambulatory	Muscular dystrophy	2
	Post polio	1
	Congenital orthopedic dislocation	1
	Spastic quadriplegia	1
	Rotary athetoid	1
Arm and leg involvements	Right rigidity hemiplegia	1
	Spastic triplegia	1
	Spastic quadriplegia	1
	Post polio	1
	Hemiparesis by trauma	1
	Rigidity quadriplegia	1
Non-visible disabilities restricting activity	Cardiac	4
	Hemiplegia	2
Non-visible disabilities	Brain damage	2
	Dislocated hip	1
	Spastic paraplegia	2
	Double hemiparesis	1
Handicaps affecting appearance	Dwarf	3
	Scoliosis	2
	Kypho-scoliosis	1
Miscellaneous	Morquio's syndrome	1
	Spina bifida	2
	Othstoid quadriplegia	1
	Spastic paraplegia vision	1
	Diabetes, vision	1

in this school just prior to the implementation of this phase of the study made it necessary to omit this school. Where possible the matched controls were selected from schools that duplicated or approximated the "neighborhood" schools of the experimental subjects.

The six identified variables used in the matching of an individual handicapped child with a non-handicapped child were selected because of their influence on the development of abilities, skills, interests, attitudes, values, and goals. Each strata of society, as well as the larger society, has expectations for children on the basis of sex and age at the same time that these variables influence the interests, values, and behavior that meet the needs of children. The peer group helps its members achieve significant learnings, excluding at times the opposite sex and varying in the tasks which it helps its members achieve in terms of their age level. In addition, it was noted that values and roles are determined, at least partially, by membership in a given race or social class.

Although age was recognized as significant, this variable presented a problem in the matching of individuals in the experimental and control groups. Many of the handicapped children, who had made satisfactory school progress, were older than their grade levels would indicate due to late entrance in school and/or long hospitalizations during their school years. The hearing impaired children, because of their language handicap, were generally 2 or 3 years "educationally retarded" although progressing at a rate "normal" for their group. It was believed that children of the same age and in a comparable grade in regular schools would generally be under-achievers, a factor that could introduce another variable. Therefore, to match on grade-level rather than age seemed desirable. Another factor entered into this consideration. To the school administrator, concerned with guiding the planning of a sequential educational program, the grade-

level placement of students was considered to be a more crucial variable than age when age and grade-level could not be equated.

Intelligence and ability to read were recognized as significant variables. The mentally alert individual is better equipped than the retarded to recognize his relationship to persons and things in his environment and to adjust meaningfully to environmental conditions and social standards. Intelligence and reading test scores are not infallible but do give clues to the ability of children to use the school program and the information available to them from their environments.

In all cases the sex and age of the subjects were obtained from the educational records. In some cases, where race was not identified, records of school enrollments prior to the desegregation of the school system and/or medical records supplied this information.

Intelligence and reading test scores were obtained from the school records. Since Baltimore has a city-wide testing program, it was possible to match individuals on a given grade level on these variables by use of the same testing instruments, although the instruments used varied from grade to grade. The tests from which scores were obtained for this study can be determined from the list of the tests administered city-wide and the grade levels in which they were given as indicated in Appendix A. The most recent intelligence scores were used. When the reading scores were not recent ones, the available scores were extrapolated to February, 1961. The matching of some hearing impaired children on intelligence presented a problem when non-verbal scores on individual performance tests for these students were significantly higher than scores on group verbal tests. No scores for individual tests were available for the non-handicapped group. In these cases the investigator noted the pattern of scores for each hearing impaired child through the years and subjectively arrived at a score that

served to describe this pattern.

To determine the social class status of the subjects of this study the Warner, Meeker, Eells Formula of Status Characteristics was used. As a result of extensive investigations of social class structure throughout the United States, it had been observed that certain characteristics of a social and economic nature were common to members of a given class. The formula devised from this information is reported to give higher than 90% agreement with classifications obtained from the intensive interview method. In the formula 7 weights were assigned to the following factors: occupation, source of income, house type, and dwelling area. The total score gave indication of social class status described in the following terms: "above the common man" -- upper-upper, lower-upper, upper-middle; "the common man" -- lower-middle, upper-lower; and "below the common man" -- lower-lower.<sup>1</sup> Appendix B contains the Warner, Meeker, Eells formula used in this study.

The actual selection of the control group on the aforementioned variables was made by the investigator through the use of the cumulative records and, where readily available, the counselors' and nurses' records. In communities where the investigator was not familiar with street addresses of the students, consultations with school personnel and tours of the neighborhoods were arranged. When the control subjects had been selected, a communication was sent to the school asking cooperation from the personnel in determining whether or not the students selected for the control group could be considered physically non-handicapped. A physically handicapping condition was defined as a physical disability seriously hindering the child in the school educational and social program. Vision corrected by glasses

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Louis A. Rath and Stephen Abrahamson, Student Status and Social Class, (Bronxville, New York: Modern Education Service, 1951), pp. 4-6.



was not considered a handicap. As a result of this inquiry, 5 substitutions had to be made, 4 for physical reasons and 1 on request of the school because of a serious emotional problem.

Summary statistics of the subjects. Table 2 describes the composition of the handicapped and non-handicapped groups of children in terms of the six previously described variables and age. In matching the individuals on the factor of intelligence, a margin of approximately 5 points was preferred by the investigator. In some cases a maximum of a 10 point deviation was permitted when the scores were within the 90-100, and above, range. An attempt was made to match reading scores within 6 months.

#### Selection of the Instruments

Two pencil-and-paper instruments were used to obtain data concerning differences in the reported self concepts and the self and ideal self congruency of physically handicapped students and non-handicapped students matched on six variables.

Q-sort. The Q-sort is a forced choice rating process in which self descriptive statements are assigned by an individual to a fixed number of ordered categories. In this process the individual being described provides his own frame of reference, and the items are evaluated in terms of the degree of importance in characterizing the person.<sup>1</sup> The sorting of the descriptive statements conforms to the normal curve distribution and makes it possible to obtain coefficients of correlation for two sortings by the same individual or for two sortings by different individuals.

The Q-sort used in this study is an instrument requiring the subject to

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Norman H. Livson and Thomas F. Nichols, "Discrimination and Reliability in Q-sort Personality Descriptions," Journal of Abnormal and Social Psychology, 52:2 (March, 1946), p. 159.

Table 2. Summary Statistics for Students in the Experimental and Control Groups

Groups tested	Sex M F	Age		Social Class Status	Race	Grade	Intelligence Scores		Reading Scores												
		Range	Mdn. $\bar{Y}$				Range	Mdn.	$\bar{X}$	S.D.	Range	Mdn.	$\bar{Y}$	S.D.							
Experi- mental	41 31	8.7	13.4	13.3	9	34	20	19	37	5	12	27	23	64	93.2	95.6	13.2	7.1	5.8	6.2	1.99
Control	41 31	7.3	13.1	12.8	9	34	20	19	37	5	12	27	23	64	95.1	96.3	11.9	8.0	5.9	6.2	1.97

make a forced normal distribution of a series of positive and negative self-referrent statements for the purpose of measuring the child's self concept report, "me" and "not me," and ideal self concept report, "I would like to be" and "I would not like to be." By correlating the child's self sort with his ideal sort, a measure of his self and ideal self congruency was obtained and expressed in terms of a Q-correlation coefficient.

This specific Q-sort, developed by Perkins, consisted of 50 self-referrent statements selected from a universe derived by Jersild from responses of 2,893 children and adolescents and categorized as follows: physical characteristics, clothing and grooming, health, home and family relationships, participation and abilities in games and sports, school and school work, intellectual status, special talents, personality traits, and social relationships. In developing his Q-sort, Perkins selected the number of items from each category in proportion to the importance ascribed to the categories by the children in terms of the frequency with which they had mentioned items in the various categories in their compositions.<sup>1</sup> The items in Perkins's Q-sort, the directions for administration, and the reporting and computational forms are included in Appendix C.

Perkins tested the reliability of the Q-sort instrument to determine its theoretical and practical usefulness by the test-retest method. He obtained a reliability coefficient of .59 for grade 4 and .70 for grade 6. The over-all reliability coefficient of .65 was obtained, a reliability which he concluded was sufficient for testing children in groups.<sup>2</sup> It seemed advisable to this investigator to test the reliability of the

<sup>1</sup> Perkins, op. cit., pp. 166-170.

<sup>2</sup> Ibid., pp. 170-176.

instrument for older children since this study included children up to grade 9. Therefore, nine handicapped students in grade 9 were retested within two days of the original test. A reliability coefficient, determined by the product-moment method, was .925. A second analysis of the test-retest data was made by the rank-difference method. The rank-difference correlation was .939. It was assumed that this instrument was reliable for the children being studied.

Two criteria were used to determine the validity which relates to whether the instrument measures what it purports to measure. It was assumed that the self concept and the instrument, constructed through sampling a larger universe of self-referrent statements derived from characteristic responses of children and adolescents as reported in Jersild's study, had internal consistency. The external criterion consisted of themes written by the subjects of Perkins's study on two topics — "What I Like About Myself" and "What I Don't Like About Myself." By computing the percentage of correct predictions made when items in the themes were compared with the child's placement of these items in the Q-sort, Perkins obtained a mean percentage agreement of 70% which he concluded was sufficiently valid to study the self concept.<sup>1</sup>

Mental Health Analysis. This instrument consists of 200 questions to which the subjects respond yes or no. The questions are classified as "assets" or attitudes, skills, aspirations, and achievements to be sought and "liabilities" or threats to emotional security impeding the attainment of objectives and satisfactions and are to be minimized. Specifically the category, assets, includes the following components: close personal relationships, interpersonal skills, social participation, satisfying work and

<sup>1</sup> Ibid., pp. 178-181.

relationships, and adequate outlook and goals. Components of liabilities to be minimized include the following: behavioral immaturity, emotional instability, feelings of inadequacy, physical defects, and nervous manifestations.<sup>1</sup>

The reliability of the instrument was determined by the authors on 425 cases using the method of "rational equivalence." This method seeks to obtain an estimate of reliability through the intercorrelations of the items in the test and the correlation of the items with the test as a whole.<sup>2</sup>

The coefficients in Table 3 were computed by authors of the test using the Kuder-Richardson formula 21.<sup>3</sup>

Table 3. Reliability Coefficients and Related Data for the Mental Health Analysis, Elementary Grades 4-8.

Areas	$\bar{X}$	S.D.	r	S.E.
Assets	76.2	14.8	.90	4.7
Liabilities	66.8	12.9	.89	4.3
Total	143.0	20.1	.90	6.4

The reliabilities of the components were expressed as the estimated correlation between a student's "obtained score" and "true score." Component scores were reported for the following 5 percentile intervals:

<sup>1</sup> Mental Health Analysis, Manual, op. cit., pp. 3-4.

<sup>2</sup> Henry E. Garrett, Statistics in Psychology and Education, (New York: Longmans, Green and Company, 1954), pp. 335-337.

<sup>3</sup> Mental Health Analysis, Manual, op. cit., pp. 5-6.

below 10, 10-24, 25-49, 50-74, and 75 and above.<sup>1</sup>

Table 4. Reliability Coefficients for the Mental Health Analysis Components.<sup>2</sup>

Components	Coefficient of Reliability
<u>Assets</u>	
Close personal relationships	.84
Interpersonal skills	.83
Social participation	.83
Satisfying work and recreation	.83
Outlook and goals	.80
<u>Liabilities</u>	
Behavioral immaturity	.81
Emotional instability	.83
Feelings of inadequacy	.84
Physical defects	.85
Nervous manifestations	.83

In determining the validity of this test, attention was given to content validity and concurrent validity. Thirty or more items based on logical and clinical criteria were developed for each of the 10 components. The most discriminating 20 items in each component were identified. Attempts were made to disguise items to which the examinee might give biased responses as he detected the purpose of the question. For example, the item, "Do you offend people?" was worded to read, "Have you found that other people's feelings are easily hurt by the things you say?" The test of 200 items was administered to 200 individuals. Percents of correct responses,

<sup>1</sup> Ibid., p. 6

<sup>2</sup> Ibid., p. 6



those indicative of good mental health, and phi coefficients were computed serving to indicate the power of each item to discriminate between those scoring high and low on the criteria. Significant differences between the correlated percents were expressed with a median phi coefficient for all items of .45.<sup>1</sup>

Studies have been conducted showing the relationship between the Mental Health Analysis scores and adjustment characteristics, indicating the ability of this instrument to differentiate between groups of individuals that had been judged to differ in adjustment patterns as judged by outside criteria. In his study of 443 students Baron determined the degree of association between Mental Health Analysis scores and social acceptance status as determined by a sociometric technique. There were significant relationships at the .01 level for 8 of 13 Mental Health Analysis scores; 9 were significant at the .05 level (behaviorial immaturity, physical defects, and nervous manifestations), and 2 were not significant (satisfying work and recreation and outlook and goals.) This study served to indicate that the Mental Health Analysis was a discriminating instrument.

It is assumed that both instruments, the Q-sort as developed by Perkins and the Mental Health Analysis, are adequate for the purposes of this study.

#### Collection of Data

Considerations made prior to the data collection. Several problems had to be resolved concerning this phase of the study. Although the value of having one person do the testing was recognized, administrative duties at the William S. Baer School prevented the investigator from visiting the 7

<sup>1</sup>  
Mental Health Analysis, Manual, op. cit., p. 9.

schools to test the subjects in the control group. Two teachers were located who were interested in participating in the testing program and who were teaching on a shift-program which gave them some free time corresponding with the regular school day in non-shift schools. Both had been testers in the annual city-wide testing programs in their own schools, were pleasing in appearance, and out-going in manner.

Three conferences and numerous telephone conversations were held to explain the purposes of the study, acquaint the testers with the instruments, and plan the testing schedule. Close contact was maintained with the testers during the testing period for the following purposes: alerting the investigator to the need for making substitutions in the subjects as a result of transfers from the school and long-term absences, communicating needs for schedule revisions when school programs and schedule conflicts in the use of building facilities made this necessary, and providing information enabling the investigator to evaluate the testing plan as it was in progress.

Problems of a different nature were recognized in the administration of the test instruments to the experimental group. Many of the orthopedically handicapped group in grades 4 to 6 had coordination difficulties which made writing laborious. In addition, the subjects classified as neurologically impaired or "brain damaged" in the elementary group had relatively short attention spans and continued to be relatively hyperactive although their conditions had improved sufficiently so that they were able to work in a "regular" classroom within the protected environment of their school.

For the reasons cited above it seemed inadvisable to administer the Mental Health Analysis of 200 items in one sitting. Therefore, the experimental and control subjects at the elementary grade level completed

Items 1-100 in one sitting, without a time limit, and the remaining questions in another sitting the following day. All junior high school students completed the whole test in one sitting without a time limit, with the exception of the hearing and vision impaired boys and girls. Reasons for making adjustments in the testing procedures for them is discussed later in this chapter.

Special consideration had to be given to the hearing impaired and vision impaired children. For both groups it was important to predetermine, insofar as possible, whether the test items could carry meanings to these students that were different from the ones intended. Assistance was sought from the teachers and the resource personnel available in the school.

Consultations were held with the teacher of the elementary grade hearing impaired children and the head of department for the hearing impaired who knows all the hearing impaired children and instructs those in the junior high school in lip-reading and language. Language patterns which might not be familiar to these students and vocabulary which could carry a different meaning were identified. The following were noted in the Mental Health Analysis:

"feel <u>bad</u> "	" <u>hard</u> to <u>get along</u> with"
" <u>left</u> out of things"	"played <u>hard</u> "
" <u>pay attention</u> to your needs"	" <u>bright</u> " (intelligent)
"more <u>attention</u> than they <u>deserve</u> "	"a <u>number</u> of things"
"give <u>credit</u> for"	"people of other <u>rac</u> es"
"entitled to their <u>rights</u> "	"tell others <u>right out</u> "
" <u>great deal</u> of help"	" <u>beliefs</u> "
"know a <u>great deal</u> "	" <u>share</u> of <u>duties</u> "
"be <u>troubled</u> "	" <u>squint</u> your eyes"

The following items were identified in the Q-sort:

"good <u>figure</u> "	"a good <u>sport</u> "
"lots of <u>energy</u> "	" <u>expect</u> too much"
" <u>confidence</u> in my abilities"	" <u>hurt</u> by criticism"
" <u>bright side</u> of <u>things</u> "	" <u>afraid</u> to take <u>chances</u> "

For four weeks prior to the testing, these terms were introduced in the speech and language lessons of the hearing impaired students, used in a variety of situations but avoiding the content of the questions in the test, and reviewed in "yes-no" type assignments with directions similar to those used in the Mental Health Analysis.

The resource teacher for the vision impaired students reviewed the instruments with the investigator. It was agreed that the answers to some of the questions could be colored by the individual child's handicap. Three such questions were identified in the Mental Health Analysis.

34. "Do you often feel so lost in your thoughts that you fail to notice the people around you?" A child with severely limited vision may not notice or recognize people in a room until he hears them speak.
97. "Do you find that you must squint your eyes a great deal?" A child with limited vision may squint to filter out light or to accommodate in seeing.
100. "Are you often bothered with eye strain?" The visually limited child may experience eye strain when he reads in improper light and/or for long periods of time.

However, it was assumed that the frame of reference with which these children might approach the above questions was within the spirit of the test.

Steps in the collection of the data. Data for this research were collected according to the schedule given below. Permission was granted to conduct this study in the public schools by the assistant superintendents in charge of elementary and secondary schools, February, 1961. The experimental group was identified and characteristics such as age, sex, race,

social status, intelligence test scores, and reading test results were noted during March, 1961. The investigator visited schools from which the control subjects were selected during the spring vacation, April, 1961, having made prior arrangements to have access to school records at that time. The testing and absentee testing of the control group by the two previously identified teachers was done between May 19 and June 5, 1961. The testing of the experimental group, including absentees, was conducted by the investigator between May 31 and June 10, 1961.

The following schedule of tests was followed for both the experimental and control groups:

1. The tester met with the children on the first day to establish rapport, explain the purpose of the testing, and ask their cooperation for the several testing periods. Appendix D contains the explanation given to the children. Each child performed the Q-sort, classifying 50 self-referrent statements in 7 categories as he judged them to be descriptive of "me" and "not me." Appendix C contains the Q-sort, directions for its administration, and computational forms.
2. On the second day the Mental Health Analysis was administered, following the standardized directions. For children at the elementary school level and for the vision and hearing impaired students this test of 200 items was administered in two sittings. All junior high school students, except for those mentioned above, completed the analysis in one sitting.
3. On the third (or fourth) day the students completed the second part of the Q-sort, classifying the same 50 self-referrent statements in terms of "I would like to be" and "I would not like to be."

Adjustments made for the hearing and vision impaired. To the hearing impaired subjects, the Mental Health Analysis and the Q-sort were administered by the investigator with spoken directions for the subjects to lip read and with written directions for support. The department head, who works closely with these children, was present during the testing to lend assistance when needed. During the testing period, questions from the students were answered when they related to lack of understanding of vocabulary.

When necessary, words were explained in "neutral" context with every precaution being taken not to influence the nature of the child's answer. Because these subjects showed fatigue as they neared the mid-point of the Mental Health Analysis, this test was administered in two sittings.

The size of the type or print of both test instruments was not adequate for the group of vision impaired children. The Q-sort was prepared for them in large type. Since it was necessary for the students to skim through these statements, possibly more than once, it was important that the students be able to read with ease. The Mental Health Analysis of 200 items was handled differently. Because the examinee referred to each statement only one time, the investigator administered this test orally in two sittings. Each child had a copy of the printed test before him so that he could use vision merely to support the oral presentation. The examiner made every effort to read in an interesting but "neutral" manner in an attempt not to influence the children's answers.

#### Statistical Methods Used in the Analysis of Data

Chi-square analysis, a method of comparing experimentally obtained results with those to be expected theoretically on some hypothesis,<sup>1</sup> was used to test for significant differences data for individual items of the Mental Health Analysis and Q-sort relating in content to the specific hypotheses. The t-test was used for major divisions of the Mental Health Analysis and for total scores to determine whether obtained differences in means were larger than could be expected by chance. Analysis of variance designs were

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<sup>1</sup> Garrett, op. cit., p. 254.



used to test for significant differences in the self reports of students in the experimental group in the various categories of physical handicap.

A series of Q correlations were made comparing the distribution of Q-sort statements made by the child's expressed self concept and ideal self. The column numbers for each item of the two Q-sort distributions were compared and the differences noted. Each difference was squared and substituted in the following formula:<sup>1</sup>

$$Q = 1 - \frac{\sum d^2}{192}$$

Fisher's "r to z" transformation tables were used to convert each correlation to a "z" score. The t-test was used to compute significant differences.

The .05 point of significance was designated as the point at which the null hypothesis was rejected.

#### Basic Assumptions

The basic assumptions underlying the research are as follows:

1. Knowledge of the self concepts of students is significant in determining their educational needs and planning an adequate educational program.
2. The self reports of physically handicapped and non-handicapped students are not synonymous with the self concepts of these individuals but do provide clues to their perceptual organization and motivation.
3. Valid and reliable self reports can be obtained from the Mental Health Analysis and the Q-sort.
4. Children in grades 4 to 9, reading at a minimum of fourth-grade level on standardized tests, have sufficient maturity and sufficient skill in reading to report their self concepts with insight and understanding.

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<sup>1</sup>  
Perkins, op. cit., p. 16.

5. To the school administrator, concerned with guiding the planning of a sequential educational program, the grade-level placement of students is a more crucial variable than age when age and grade-level cannot be equated.
6. All uncontrolled variables, not accounted for in this research, that are likely to influence the self reports of the subjects are randomly distributed among both the handicapped and non-handicapped groups and, therefore, do not affect the results.

#### Summary

This chapter describes the experimental design which was used in this study of the self reports of physically handicapped and non-handicapped students. The procedures for selecting the subjects of the investigation were explained, and the instruments used in the study were described. The steps followed in the collection of data, the adaptations made in the testing procedures, and the methods used for analyzing these data were described. The chapter concluded with a statement of the basic assumptions that underlie the design of this research.

CHAPTER VI

ANALYSIS OF DATA AND FINDINGS RELATIVE  
TO THE SELF REPORTS OF PHYSICALLY HANDICAPPED  
AND NON-HANDICAPPED CHILDREN

Collection and Analysis of Data

The procedures followed in collecting and analyzing the data of this study were described in Chapter V. The Mental Health Analysis and the Q-sort, designed by Perkins, were administered to 72 matched pairs of physically handicapped and non-handicapped students, selected from grades 4-9, during May and June, 1961. All the subjects in the experimental and control groups completed the Mental Health Analysis, but only 66 matched pairs completed the Q-sort due to long absences or transfers from school for 6 children.

Measures of central tendency and variability were computed for the Mental Health Analysis, using three sets of data, two relating to the major divisions of the test -- assets and freedom from liabilities -- and the third using total test scores. Because the populations tested were not presumed to be normally distributed, the t-test was selected to determine if the differences in the results were so great that they could not have occurred by chance. The following formula, appropriate to data relating to matched pairs, was used:<sup>1</sup>

<sup>1</sup> M. Clemens Johnson, lecture at the University of Maryland in Ed. 151, "Statistical Methods in Education," Summer, 1959.

$$t = \frac{\frac{\sum x}{N}}{\sqrt{\frac{\sum x^2 - \frac{(\sum x)^2}{N}}{N - 1}}}$$

The .05 level was accepted as an appropriate level for rejecting the null hypothesis. Because the rationale for this study and its application to physical handicaps, presented in Chapters I and II, gave strong indication that the mean scores for handicapped children would be lower than those of the non-handicapped children and the hypotheses were so stated, the one-tailed test was used.<sup>1</sup>

The ten components of the Mental Health Analysis were grouped in terms of their relation to the five aspects of self being studied -- physical adequacy; personal relations and social participation; capacities, abilities, and skills; satisfying work and recreation pursuits, behavior reflecting the objects, events, and situations meaningful to the individual; and emotional stability and use of physical manifestations, indicative of adjustment. For the 200 items in the test instrument, a tabulation was made of the responses as "right" or "wrong" in terms of their relation to factors of mental health. The responses made by the handicapped and non-handicapped groups to each item were tested for significant differences by the Chi-square statistic, using a 2 x 2 table, calculated with the

<sup>1</sup> Helen M. Walker and Joseph Lev, Elementary Statistical Methods, (New York: Henry Holt Company, 1958), p. 231.

Yates correction,<sup>1</sup> and using one degree of freedom. A "p" of .05 was accepted as an appropriate level of significance. Total scores for each component and groups of components were tested similarly by the Chi-square statistic. Appendix E contains the 200 items of the Mental Health Analysis classified in terms of the five aspects of the self concept being analyzed. The number of "right" and "wrong" responses made by the experimental and control groups are reported, and the  $X^2$  and "p" are indicated for the items found to be significant and for component scores.

The 50 items in the Q-sort were classified in terms of the five aspects of the self concept being analyzed in this study. Scores were tabulated in terms of the number of handicapped children and non-handicapped children selecting specific items as descriptive of themselves, as not descriptive of themselves, and as items about which they were uncertain. Each item and each group of items were tested for significant differences by the Chi-square statistic, using a 3 x 2 table, calculated with the Yates correction and two degrees of freedom. A "p" of .05 was considered an appropriate level of significance. Appendix F contains the 50 items of the Q-sort classified in terms of their relation to the five aspects of the self concept being studied. Scores in terms of "me," "not me," and "uncertain" are reported, and the  $X^2$  and "p" for significant items are indicated.

<sup>1</sup>

Henry E. Garrett, Statistics in Psychology and Education, (New York: Longmans, Green and Co., 1954), p. 258.

### Findings Relative to the Comparisons of the Self Concept Reports

The Mental Health Analysis was administered to 72 matched pairs of handicapped and non-handicapped students. Data in Appendix E indicate that the handicapped students in this study score lower on the two major categories of the test -- assets and freedom from liabilities -- and on the total score. The handicapped children score 5606 on "assets," and the control group score 5781. The handicapped score 4898 on "freedom from liabilities" as against 5194 for the control group. Total scores for the 200 items were 10504 and 10975, with the handicapped students scoring lower. Data in Table 5 indicates that all three mean scores are lower for the handicapped group. However, the self reports for "assets" are not significantly different,  $p = .10$ , but significant differences are noted for "freedom from liabilities" and total scores. Therefore, a conclusion is drawn that the handicapped students in this study report themselves as not significantly different from the non-handicapped students in the attitudes, aspirations, skills, and achievements contributing to self actualization. However, it should be noted that  $t$  of -1.494 with a "p" of .10 does not indicate strength in this area for the handicapped group. On the other hand, the handicapped students report themselves as being significantly less free of liabilities which can threaten the attainment of satisfactions and objectives and can contribute to problems of adjustment. This is substantiated by the significantly lower total scores for the experimental group.

Total scores from the Mental Health Analysis component, "Freedom from Physical Defects," and item analysis provide data for the study of the physical adequacy reported by the handicapped and non-handicapped groups. These data are reported in Table 6. The total scores for the 20 items



Table 5. Measures of Central Tendency, Variability, and Significant Differences for Two Major Categories and Total Scores for the Mental Health Analysis

	Mdn.		$\bar{X}$		Range		$S^2$		S		t	P
	E	C	E	C	E	C	E	C	E	C		
Assets	82.40	82.01	77.86	80.26	44	50	124.21	100.47	11.15	10.02	-1.49	N.S.
Freedom for Liabilities	68.02	70.25	68.03	72.14	68	68	229.08	283.47	15.13	16.82	-1.77	.05
Total	147.50	151.50	145.50	152.42	104	104	555.44	424.38	23.53	20.59	-2.004	.02
											72 pairs	71 df.

indicate that significant differences exist between the two groups with the handicapped children reporting themselves less free of physical defects. Of the 20 items, only 3 revealed significant differences between the experimental and the control groups. The two most significant items related to inadequacy in the use of feet and/or hands for the handicapped students.

Table 6.  $\chi^2$  Values and Probabilities for Differences for Significant Items and Total Scores, "Freedom from Physical Defects," in Mental Health Analysis

Items	E		C		$\chi^2$	P
	R	W	R	W		
93. Do you worry because there is something wrong with your legs or feet?	55	17	66	6	5.172	.03
143. Do you sometimes feel bad because you can't do what you would like with your hands or feet?	45	27	63	9	10.700	.01
193. Do you think your hair is too straight or too curly to look nice?	47	25	59	13	4.324	.05
Total score, 20 items	1247	193	1306	134	11.601	.01
(See Appendix E for complete list of 20 items.)						
72 pairs, 71 df.						

Where the 20 items from the Mental Health Analysis, referred to above, related to physical defects including appearance, the Q-sort included, in addition, items relating to physical skills, physical activities, and energy level. The Q-sort contained 8 positive statements and 8 negatively stated ones pertaining to physical factors. Table 7 reports the items found to be statistically significant in noting differences between the

handicapped and non-handicapped subjects of this study. The physical skills in which the handicapped group report themselves less adequate are in running and jumping, skills related to the use of legs and feet.

Table 7.  $\chi^2$  Values and Probabilities for Differences for Significant Items Relating to Physical Adequacy and Total Scores in the Q-sort Self Report

Items	E			C			$\chi^2$	P
	M	? NM		M	? NM			
3. I am a fast runner.	11	24	31	26	15	25	7.382	.03
20. I can jump well.	12	34	20	28	24	14	7.766	.03
Total scores, 8 positively worded items.	177	207	144	204	158	156	10.538	.01
9. My clothes are different than kind other people wear.	10	28	28	10	12	44	8.748	.02
19. I am clumsy.	7	10	49	2	23	41	6.684	.04
15. I do not like active games.	8	26	32	8	40	18	6.884	.04
Total scores, 8 negatively worded items.	72	172	284	66	190	272	1.388	N.S.
(See Appendix F for total list of items.)							66 pairs, 64 df.	

Total scores for the positive statements from the Q-sort indicate that significantly fewer handicapped children ascribe to themselves positive physical characteristics included in this instrument and more handicapped than non-handicapped students are uncertain in this area. Fewer children in both the handicapped and non-handicapped groups ascribe the negatively worded statements to themselves. Although more handicapped children report that the negative statements are not descriptive of them, the differences

in the two groups of scores are not significant. There are significant differences in the number of handicapped children who report uncertainty about whether their clothes are different. However, on two items the members of the experimental group are more decisive in reporting that they are not clumsy and that not liking active games is not part of their self picture. For these two items the handicapped group evidence less ambivalence than the control group.

Differences in adequacy of interpersonal relations for the two groups of students was studied from data presented in Tables 8 and 9. Items for the analysis were obtained from two components of the Mental Health Analysis, "Close Personal Relations" and "Social Participation," and from the Q-sort. Total scores for items relating to this phase of the study were analyzed for significant differences between the reports of the handicapped and non-handicapped students. Of the four items from the Mental Health Analysis relating specifically to close personal relations that were found to discriminate between the two groups significantly, two favor the handicapped group. Handicapped students report themselves as having close relations with their teachers at the .05 level and liking the traits that their friends possess at the .03 level. However, significantly fewer handicapped children report knowing someone with whom they could trust their secrets and having someone at home who helps them get the money they need.

The items that are significant in terms of social participation are striking in their content similarity and the high level of significance probability ascribed to each. Generally, the handicapped children report that they have less opportunity for participation in group activities involving their agemates than do the non-handicapped group. Total scores

Table 8.  $\chi^2$  Values and Probabilities for Differences for Significant Items and Total Scores from the Mental Health Analysis Relating to Interpersonal Relations

72 pairs, 71 df.										
Items	E			C			$\chi^2$	P		
	R	W		R	W					
<u>Close Personal Relations</u>										
2. Do you sometimes have a good talk with one or more of your teachers?	54	18		41	31		4.454	.05		
151. Does someone at home help you get the money you need for things?	56	16		66	6		4.342	.05		
154. Do you know someone who will keep your secrets?	56	16		66	6		4.342	.05		
176. Do most of your friends have the traits or qualities you like?	64	8		52	20		5.362	.03		
Total score, Close Personal Relations	1196	244		1253	187		8.556	.01		
<u>Social Participation</u>										
36. Are you a member of a group which does interesting things?	35	37		56	16		11.940	.01		
86. Are you a member of Cubs, Scouts, Bluebirds, Girl Scouts, or some similar group?	14	58		32	40		9.230	.01		
161. Do you sometimes help to plan or carry on a party?	53	19		65	7		5.680	.02		
162. Are you a member of a boys' or girls' group which does interesting things?	26	46		45	27		9.000	.01		
Total score, Social Participation	1085	355		1152	288		8.720	.01		
Total score, Interpersonal Relations	2281	599		2405	475		17.413	.01		

for all items relating to both close personal relations and social participation discriminated significantly between the handicapped and non-handicapped groups, at the .01 level, indicating that the former report themselves as having less adequate interpersonal relations than the non-handicapped group.

Results derived from the Q-sort, items relating to close personal relations, failed to yield significant differences between the two groups under study. However, two items are significant as reported in Table 9.

Table 9.  $\chi^2$  Values and Probabilities for Differences for Significant Items for Interpersonal Relations and Total Scores in the Q-sort Self Report

Items	E			C			$\chi^2$	P
	M	?	NM	M	?	NM		
15. Other people want me to tell them what to do.	15	31	20	21	10	35	8.746	.02
37. My parents let me decide things for myself.	35	21	10	22	24	20	6.496	.05
Total score, Positive items	141	90	33	139	70	65	2.758	N.S.

66 pairs, 64 df.

Handicapped children report that their parents let them decide things for themselves. On this item the difference between the experimental and control groups tests at the .05 level. More handicapped than non-handicapped students report this item as descriptive of themselves, and fewer view it as not descriptive of them. The second item -- "Other people want me to tell them what to do." -- is also significant at the .05 level and scores indicate greater ambivalence on the part of the handicapped children.



To study the significant differences between the self reports of the experimental and control groups in terms of abilities, capacities, and skills, the two instruments referred to above were used. The Mental Health Analysis included 20 items describing interpersonal skills, and the Q-sort included a broader spectrum of abilities, capacities, and skills. From Table 10 it is evident that the total scores on the component, Interpersonal

Table 10.  $X^2$  Values and Probabilities for Significant Items and Total Scores Relating to Interpersonal Skills from the Mental Health Analysis

Items	E		C		$X^2$	P
	R	W	R	W		
84. Do you usually go out of your way to help others?	65	7	54	18	4.840	.05
184. Are you able to tell interesting stories....?	45	27	61	11	8.042	.01
Total scores, Interpersonal Relations	1113	327	1147	293	2.236	N.S.

72 pairs, 71 df.

Skills, are not significantly different, although the number of correct responses for the handicapped group is lower. A larger number of handicapped students report themselves, at the .01 level, as less capable in telling interesting stories. On the other hand, more handicapped children indicate that they usually go out of their way to help others, an item that is significant at the .05 level.

Total scores for 9 items on the Q-sort reveal significant differences at the .05 level, with more handicapped children ascribing positive qualities to themselves but also indicating more uncertain responses than do the

non-handicapped. More children in the control group report that these positively worded statements are not descriptive of them. Data is reported in Table 11.

Table 11.  $X^2$  Values and Probabilities for Differences for Significant Items Relating to Capacities, Abilities, and Skills in the Q-Sort

Items	E			C			$X^2$	P
	M	?	NM	M	?	NM		
8. I am a leader	9	36	21	9	22	35	5.932	.05
Total score, positive items	319	193	82	306	170	118	7.686	.05
6. I cannot talk well in front of a group.	10	25	31	24	16	26	7.330	.03
Total score, negative items.	19	48	65	38	41	53	14.498	.01

66 pairs, 64 df.

Nine children in both groups describe themselves, "I am a leader." However, more children without handicaps report that this quality is not descriptive of them, and more handicapped children report uncertainty. Differences are noted at barely the .05 level of significance. The item -- "I cannot talk well in front of a group." -- discriminates between the groups at the .03 level of significance with more non-handicapped students ascribing this inability to themselves. The handicapped children's scores indicate a larger number of responses in terms of "not me" and "uncertain." There is no evidence that the handicapped subjects describe themselves as less adequate than the non-handicapped in terms of skills, capacities, and abilities.

Another aspect of the study of the self reports of the experimental and control groups, satisfying work and recreational pursuits, sought to gain insight into the objects, situations, and events which had meaning for the students. Two components of the Mental Health Analysis were used, Adequate Outlook and Goals and Satisfying Work and Recreation. Table 12 reports data indicating no significant differences between the two groups of subjects in the self reports of their outlook and goals. However, total scores

Table 12.  $X^2$  and Probabilities of Significant Differences for Items and Total Scores Relating to Adequate Outlook and Goals and Satisfying Work and Recreation from the Mental Health Analysis

Items	E		C		$X^2$	P
	R	W	R	W		
Total scores, Outlook, Goals	1149	291	1129	311	.822	N.S.
<u>Satisfying Work, Recreation</u>						
44. When you play, do you play hard?	33	39	56	16	14.238	.01
95. Do you have interesting things to do when tired of work, play?	54	18	66	6	6.048	.02
166. Do you have good times raising animals, playing with pets?	56	16	66	6	4.432	.05
Total score, Work, Recreation	1085	355	1152	288	8.720	.01
<u>Combined scores</u>	2234	646	2281	599	2.166	N.S.

72 pairs, 71 df.

for items relating to satisfying work and recreational activities discriminate significantly between the experimental and control groups, with the

handicapped group generally reporting themselves as having less satisfying work and recreational pursuits. Fewer handicapped than non-handicapped students report that they like to "play hard," have interesting things to do when they tire of work or study, and have good times raising or playing with pets.

Table 13 reports the significant items from the Q-sort relating to

Table 13.  $X^2$  and Probabilities of Significant Differences for Items and Total Scores Relating to Satisfying Work and Recreation Pursuits from the Q-sort

	E			C			$X^2$	P
	M	?	NM	M	?	NM		
34. I like reading.	48	11	7	34	23	9	6.884	.04
48. I watch, listen to radio, TV.	55	10	1	43	22	1	6.190	.04
Total scores, positive statements	230	68	32	199	83	48	6.542	.04
28. I am not a good sport.	9	14	43	11	27	28	6.466	.04
Total scores, negative statements	48	70	136	60	84	119	2.716	N.S.

66 pairs, 64 df.

objects, situations, and events reported as meaningful by the subjects being studied. The handicapped children take a more positive stand for sportsmanship, with less ambivalence in regard to it, than do the non-handicapped. In comparison with the control subjects, more handicapped children report themselves as liking reading and watching and listening to television and radio and having less uncertainty about themselves in reference to these activities.

In studying the quality of adjustment of the experimental and control groups, four components of the Mental Health Analysis were used: (1) Freedom from Behavioral Immaturity, (2) Freedom from Emotional Instability, (3) Freedom from Feelings of Inadequacy, and (4) Freedom from Nervous Manifestations. The analysis of the data obtained is reported in Table 14. Total scores for the components relating to behavioral immaturity and emotional stability fail to discriminate between the handicapped and non-handicapped children. The total score for items concerning nervous manifestations discriminate between the two groups of students at the .01 level, with fewer handicapped children describing themselves as being free from nervous manifestations. "Freedom from Feelings of Inadequacy" reveals very significant differences between the experimental and control groups, with fewer handicapped than non-handicapped children reporting themselves free from feelings of inadequacy. Total scores for the four components relating to adjustment, significant at lower than the .01 level, indicate that handicapped children report more problems in this area than do non-handicapped children.

The seven negatively worded Q-sort statements relating to adjustment,  $\chi^2$  of 5.300, fail to indicate significant differences between the experimental and control groups at the .05 level, and no items test as significant. However, more handicapped (90) than non-handicapped (76) children ascribe these negative statements to themselves, but, on the other hand, more handicapped children (216) than non-handicapped children (195) indicate that these statements are not descriptive of them.

Only one item, significant at the .01 level, from the Mental Health Analysis is indicative of more adequate adjustment for the handicapped group -- "Have you found that it pays to tell others right out about things you don't

Table 14. <sup>2</sup>  $\chi^2$  and Probabilities of Significant Differences for Items and Total Scores Relating to Adjustment from the Mental Health Analysis

Items	E		C		$\chi^2$	P
	R	W	R	W		
<u>Freedom from Behavioral Immaturity</u>						
3. Are you usually able to get the best seat....?	32	40	45	27	4.018	.05
80. Have you found it pays to tell others right out....?	44	28	26	46	8.034	.01
179. Have you found....that you cannot depend on others?	36	36	49	23	4.127	.05
Total score for 20 items	956	484	982	458	.984	N.S.
<u>Freedom from Emotional Instability</u>						
109. Do you find it hard to.... take things easy?	47	25	58	14	4.186	.05
Total score for 20 items	860	580	884	556	.766	N.S.
<u>Freedom from Feelings of Inadequacy</u>						
11. Are people often so unfair that you have to make many excuses for yourself?	51	21	61	11	3.932	.05
14. Have you found it hard to make friends....?	52	20	63	9	4.316	.05
88. Do many people....think they cannot depend on you?	46	26	60	12	6.040	.02
90. Do you need a great deal of help from your teacher?	40	32	54	18	5.178	.03
112. Have you found that many people are hard to get along with?	33	39	46	26	4.026	.05
188. Does it seem that most of your friends do things better than you?	31	41	50	22	5.541	.02
Total score for 20 items	827	613	937	503	17.384	.01
<u>Freedom from Nervous Manifestations</u>						
23. Do you have a hard time going to sleep?	42	30	55	17	4.546	.05
46. Do you often have stomach-aches?	44	28	56	16	3.960	.05
72. Do you often have headaches?	43	29	57	15	5.528	.02
175. Do you often have pains in your head?	50	22	64	8	7.114	.01
Total score for 20 items	1021	419	1085	355	7.010	.01
Total score, Adjustment	3664	2096	3888	1872	19.116	.01

66 pairs, 71 df.



like?" In other significant items more handicapped children than non-handicapped children report themselves as being less able to depend on others, having greater need to make excuses for themselves, finding it hard to get along with many people, and having difficulty making friends with the people they like. In addition, the reports indicate that more handicapped than non-handicapped subjects view themselves as being judged by others as not dependable, being less able than their friends to do things well, being less able to get the best seat at a program, and needing more help from their teachers. More handicapped children report that they have difficulty going to sleep, find it hard to relax and rest, and report frequent stomach-aches and headaches.

Reference is made here to Table 5, reported previously, in which the experimental and control groups are found not to be significantly different as they report their assets, but significant differences are noted in the self reports of freedom from liabilities and the total scores for the 200 items in the Mental Health Analysis. It is concluded that handicapped children report themselves as less free from liabilities and as adjusting less adequately.

#### Results of Testing the Hypotheses

Five hypotheses relating to the self reports of the handicapped and non-handicapped students were tested in this study. The hypotheses originally stated in Chapter I are restated here. A statement is made regarding the tenability of each hypothesis with respect to the findings of this study, and evidence is presented to support the conclusions made. Generally, the significance of the component scores of the Mental Health Analysis is used as the major criterion, and the Q-sort results are used as support for the conclusions.

1. Physically handicapped students report themselves as significantly less adequate physically than do physically non-handicapped students.

This hypothesis is sustained. The total score for the 20 items, Freedom from Physical Defects, from the Mental Health Analysis, tested by the Chi-square statistic, differentiated significantly between the handicapped and non-handicapped students at the .01 level. In addition, eight positively worded Q-sort statements relating to physical factors revealed significant differences at smaller than  $p = .01$ .

2. The self reports of handicapped boys and girls show significantly less close personal relations and less social participation than do those of non-handicapped students. This hypothesis is sustained. The total scores for the 40 items of the Mental Health Analysis relating to close personal relations indicate significant differences at the .01 level as a result of the Chi-square test. A similar level of significance differentiated the two groups of students in their self reports of social participation. The scores for both components and the combined scores, all significant at the .01 level, sustain the above hypothesis.

3. The physically handicapped students report themselves as significantly less adequate in terms of the capacities, abilities, and skills that they have for use than do non-handicapped students. This hypothesis is not sustained. The Mental Health Analysis component failed to differentiate significantly between the experimental and control groups in terms of interpersonal skills. On the other hand, differences significant at the .05 level were revealed by the Chi-square test for the total responses to nine Q-sort statements relating to a variety of skills and abilities. More handicapped than non-handicapped pupils ascribed these skills and abilities to themselves and fewer handicapped subjects indicated that

these positive statements were not descriptive of them. However, evidence that significant differences existed was not considered to be conclusive. The hypothesis is not sustained.

4. Students with physical handicaps report themselves as significantly less adequate in goals and satisfying work and recreational pursuits. This hypothesis is sustained in part. Differences between the handicapped and non-handicapped students in terms of the reports of their outlook and goals on the Mental Health Analysis were not significant. Total scores for five positively stated items from the Q-sort describing worthy interests and values were significant at the .05 level, indicating that more handicapped than non-handicapped children report these items as descriptive of themselves. This supports the conclusion that handicapped children cannot be considered less adequate in their goals.

On the other hand, differences significant at the .01 level were determined for the total scores on the component, Satisfying Work and Recreation. These scores indicated that fewer experimental subjects than control subjects described themselves as having satisfying work and recreational pursuits. Combined scores for the two components were not significant. Therefore, the hypothesis is sustained in part.

5. Handicapped students report themselves as possessing significantly less emotional stability and using significantly more physical manifestations in self adjustment than non-handicapped students. This hypothesis is sustained. The hypothesis as stated and discussed in Chapter I was designed to explore the self adjustment of the handicapped and non-handicapped students participating in this study. The combined scores of the four components, including 80 items, indicated highly significant differences between the two groups of children in self adjustment, with the

handicapped children reporting themselves as less free of problems of adjustment than the non-handicapped. Of the four significant individual items relating to nervous manifestations, all were physical in nature, with more handicapped children reporting their use. From the evidence cited, the above hypothesis is sustained.

#### Discussion of the Results

Results of the testing of the hypotheses indicate that the handicapped children, when compared with non-handicapped children, report themselves as having less physical adequacy, feeling less adequate in interpersonal relations, having less satisfying work and recreational activities, having less freedom from feelings of inadequacy, and having less freedom from nervous manifestations. On the other hand, significant differences were not found to exist between the handicapped and non-handicapped groups in goals and outlook on life and in the capacities, abilities, and skills that these handicapped children report they have for use.

No significant differences between the handicapped and non-handicapped subjects in outlook and goals and in available skills appears to indicate that the former report that their orientation to the world, their aspirations, and the skills and abilities that they can bring to the realization of these aspirations are not significantly different from those of non-handicapped children. However, these self evaluations for many handicapped children grow out of limited social experiences, more frequent interaction with adults than peers, and schooling in a protected environment populated by other handicapped children. Although the above results suggest a positive outlook on the world and their relation to it, there are indications that these children with disabilities feel the impact of their handicap in terms of the ways they view themselves as physical



organisms, in their relations with the significant people in their world, and in the satisfaction that they gain from the activities available to them.

Support for these statements comes from the highly significant differences revealed between handicapped and non-handicapped students in their feelings of inadequacy, feelings that reflect the appraisals of the significant people of their world and the adequacy which they feel they have for making an impact on their environment. Several questions for further exploration are posed by this discussion. In what specific terms do individuals view their specific handicaps? What specific aspirations do individuals hold? How can the school help these children view their strengths and weaknesses in as objective terms as possible?

The analysis of significant items from the two test instruments, Mental Health Analysis and Q-sort, is of practical value in gaining insight into the content of the self concept reports of handicapped children. The handicapped children in this study do not see themselves as clumsy. They recognize their inadequacy in using their feet and/or hands, report a lack of ability in running and jumping, but indicate that they like active games. Although not significant, fewer handicapped children report having "lots of energy." The rationale for this study supports the idea that a low energy level would be characteristic of many handicapped children. However, these children may not evaluate themselves in relation to this factor in the same frame of reference as do the non-handicapped children.

Handicapped children report that they can have a "good talk" with their teachers and can look to them for help. This appears to be more true of the handicapped children studied than the non-handicapped and suggests that the small classes characteristic of the school for the handicapped may be conducive to closer pupil-teacher relations. In addition, it is indicated

that handicapped children view the teacher as a significant person in their world which emphasizes her role as supporter and guide.

Parents, too, are viewed as important in the child's world. The children see their parents as allowing them to decide things for themselves. However, parents are reported as not helping their handicapped children to get money for the things they need. It is not possible to interpret this item in isolation. Handicapped children may have limited opportunities to handle money in purchasing, or less money may be available in homes where the care of the children presents financial hardship.

Findings with many implications for the school program of handicapped children relate to the lack of opportunities for these children to participate in group activities with their age mates and to find interest and satisfaction in a variety of activities outside of school. Several questions worthy of exploration are raised. What opportunities for participation in youth groups are available in the communities of these children? Are these appropriate for the handicapped child? How aware are parents of the value of peer group participation for their disabled children? What leisure time activities can the school help to promote? There are curricular implications in the field of the language arts for guiding children to be discriminating in their selection of television programs, helping them to develop broad interests in reading, encouraging the use of school and public libraries, and helping boys and girls develop the art of conversation. Arts and crafts that can become hobbies have a place in the school program. Collections relating to studies in science and social studies can be encouraged. Game skills, such as checkers and other social games, can help these children feel successful in group situations. Many of the orthopedically handicapped children will not participate in sports, but they



can be helped to be enthusiastic and intelligent observers. On the other hand, many hearing impaired children can participate well in athletics and dancing. How can an effective program be implemented in a school building designed originally to accommodate orthopedically handicapped children?

In the area of adjustment, handicapped children reveal the frequency with which they face situations of threat and the lack of freedom from liabilities. They indicate that they find it difficult to relax and report frequent stomach-aches and headaches. A significant number of handicapped children report feeling that they cannot depend on others, are judged as not dependable, cannot perform as well as their friends, must make excuses for themselves, find it hard to get along with people, and have difficulty making friends. Children who feel inadequate will have difficulty in reaching out for new experiences. How can the school recognize the assets of each individual and help him to develop these areas to the maximum? What skills are valued by the adults and the peers in his world and which can the handicapped child develop? What healthy compensations can these boys and girls make in their areas of weakness? As the teacher and administrator gain insight into the ways in which handicapped children view themselves, a school program can be designed to help these pupils develop goals that are realistic in promoting self development.

#### Summary

This chapter described the collection and analysis of data relating to testing the hypotheses posed by the first sub-problem -- the self reports of physically handicapped and non-handicapped children. The conclusions which emerge from this part of the study are stated below:

1. Physically handicapped children report themselves significantly

less adequate physically than do physically non-handicapped children.

2. Physically handicapped children report that they have less satisfying interpersonal relations than do children without handicaps. This finding holds for both close personal relations and social participation.
3. No significant differences were found for the capacities, abilities, and skills that the control and experimental groups report they have for use.
4. Handicapped children do not report themselves as significantly different in their goals and outlook on life, but significant differences are revealed in the realizations of these goals in satisfying work and recreational pursuits. Significantly fewer handicapped than control subjects describe themselves as having satisfying experiences in these areas.
5. Handicapped children score significantly lower in the area of adjustment, with significant differences noted between handicapped and non-handicapped children in freedom from feelings of inadequacy and use of nervous manifestations. Of the four significant items relating to nervous manifestations, all are physical in nature.
6. Of particular significance to the teacher of handicapped children and the school administrator are the reported lack of opportunities for these children to participate with their agemates, the dearth of interesting and challenging activities for these boys and girls in their leisure time, and the strong feelings of inadequacy which they carry as part of the self picture. There are implications for the design of the school program in terms of each of these problems.

# CHAPTER VII

## SELF REPORTS OF STUDENTS IN VARIOUS CATEGORIES OF PHYSICAL HANDICAP

### Collection and Analysis of Data

This chapter reports the procedures for analyzing the data and the findings relative to the second sub-problem of this study -- the self reports of students in various categories of physical handicap. Data collected from the Mental Health Analysis were used to explore this phase of the study. The ten components of this instrument were grouped, as previously described and reported in Appendix E, in terms of the five aspects of the self concept being investigated -- physical factors; interpersonal relations; skills, capacities, and abilities; meaningful objects, situations, and events; and adjustment. Analysis of variance statistical designs were used to test for significant differences the component scores for children in the twelve categories of handicap. The twelve categories of handicap were identified in Chapter I. Table 15 reports the findings.

### Findings Relating to the Self Reports According to Handicap

Scores from the Mental Health Analysis, items relating to freedom from physical defects, were tested by analysis of variance for significant differences in the self reports of children in the various categories of handicap. No significant differences are found between children in the various categories of handicap in their self reports of freedom from physical defects. These findings do not support the hypothesis that children differ

Table 15. Analysis of Variance of Grouped Mental Health Component Scores Testing Significant Differences Between the Self Reports According to Handicap

Aspect of Self Report	Source of Variation	Sum of Squares	df.	Mean Squares	F	P
<u>Physical Factors</u>	Between Groups	68.00	11	6.18	.69	N.S.
	Within Groups	536.00	60	8.93		
	Total	604.00	71			
<u>Interpersonal Relations</u>	Type Relations	85.15	1	85.15	7.05	.01
	Type Handicap	218.58	11	19.87	1.64	N.S.
	Interaction	89.10	11	8.10	.67	N.S.
<u>Abilities, Skills</u>	Between Groups	392.83	23	17.08	1.41	N.S.
	Within Groups	1448.50	120	12.07		
	Total	1841.33	143			
<u>Meaningful Objects, Events, Situations</u>	Between Groups	98.00	11	8.9	1.17	N.S.
	Within Groups	458.00	60	7.6		
	Total	556.00	71			
<u>Adjustment</u>	Type, Object, Situation	64.00	1	64.00	8.39	.01
	Type, Handicap	27.13	11	2.47		N.S.
	Interaction	71.17	11	6.47		N.S.
<u>Adjustment</u>	Between Groups	162.30	23	7.05		N.S.
	Within Groups	915.00	120	7.625		
	Total	1077.30	143			
<u>Adjustment</u>	Type Adjustment	350.94	3	116.78	8.28	.01
	Type Handicap	300.335	11	27.30	1.93	.05
	Interaction	611.395	33	18.53	1.31	N.S.
<u>Adjustment</u>	Between Groups	1262.67	47	26.86	1.90	.05
	Within Groups	3385.33	240	14.11		
	Total	4648.00	287			

significantly in their self reports in this area in terms of the nature of the handicap.

To test for significant differences the ways in which pupils perceive the important people in their world, data were collected from two components of the Mental Health Analysis -- Close Personal Relations and Social Participation. Analysis of this data indicates that groups of handicapped children do not differ significantly in their reports of interpersonal relations. However, significant differences are noted, at the .01 level, on the variable of the type of interpersonal relations, close personal relations and participation in social situations, with children scoring higher in the former area.

The reports of the students with different types of handicap were tested for significant differences in interpersonal skills, the only component of skill development included in the Mental Health Analysis. The analysis of variance statistical procedures fail to reveal significant differences between the various groups in respect to the items of this component.

It has been hypothesized that children in different classifications of handicap differ significantly in the objects, situations, and events which they identify as having meaning for them. Data were gathered from two components of the Mental Health Analysis, Adequate Outlook and Goals and Satisfying Work and Recreation. Significant differences, at the .01 level, exist between the two components of this aspect of the self concept report. Other sources of variation are not significant. Scores for the component, Adequate Outlook and Goals, are consistently higher for each group of handicap than for the component, Satisfying Work and Recreation, except for children with severe hearing loss, for whom the component score relating to the outlook and goals was lower than for satisfying work

and recreation activities.

The adjustment of the handicapped children was analyzed by disability. Scores on four components were tested by analysis of variance for significant differences -- Freedom from Behavioral Immaturity, Freedom from Emotional Stability, Freedom from Feelings of Inadequacy, and Freedom from Nervous Manifestations. Significant differences, at the .01 level, are evidenced for the type of adjustment and at the .05 level for the type of handicap. However, the interaction effects are not significant. The t-test revealed significant differences at the .01 level, between children with mild leg involvements needing no support and hearing impairment, with the latter scoring lower. Significant differences were found, at the .01 level, between the types of adjustment, with lowest scores relative to freedom from feelings of inadequacy. Only the items relating to freedom from nervous manifestations were not significant.

#### Results of Testing the Hypotheses

Five hypotheses relating to the five aspects of the self reports of the children in the twelve categories of handicap were tested in this research by analysis of variance, using data from the Mental Health Analysis. The hypotheses are stated here as they appeared in Chapter I. A statement is made with respect to the tenability of each.

6. Self reports indicate that students in the various categories of handicap perceive themselves as significantly different in physical adequacy according to the nature of the disability. This hypothesis is refuted. No significant differences are noted between the groups of handicapped children in respect to physical adequacy.



7. There are significant differences in the ways in which pupils in the various categories of handicap perceive the important people in their world. This hypothesis is also refuted. Results of the testing indicate that children in the various categories of handicap are not significantly different in their reports of interpersonal relations. However, significant differences are noted between the types of interpersonal relations, close personal relations and social participation.

8. The students with different types of handicap vary significantly in their perceptions of the capacities, abilities, and skills that they have for use. From the evidence available, this hypothesis is refuted. The self reports, analyzed by groups of handicap, reveal no significant differences in interpersonal skills. However, data are limited because all areas of skills are not included in this instrument.

9. The children in the various classifications of handicap differ significantly in the objects, situations, and events which they identify as having meaning for them. This hypothesis is refuted. According to their self reports children do not differ significantly in their values and aspirations and in the realization of their goals through satisfying work and recreation when analyzed by handicap. The children do respond differently, though, to the kinds of objects, situations, and events which they value and in their movement toward these.

10. There are significant differences in the ways in which groups of students in the various areas of handicap adjust to threatening situations. This hypothesis is sustained. Children respond significantly differently to threatening situations, at the .05 level, in terms of the type of handicap. The most significant differences are found between hearing impaired children and children with mild leg involvements requiring no support, with

hearing impaired children scoring lower. These differences are significant at less than the .01 level. In addition, it was determined that handicapped children respond with significant differences, at the .01 level, to the types of adjustment tested, with lowest scores in freedom from feelings of inadequacy.

#### Discussion of the Findings

The rationale of this study emphasizes the concept of behavior as a function of perception. Therefore, the way an individual perceives himself and his world determines his actions. This concept is applied to children with handicapping conditions. When motor and/or sensory deprivation limit or distort experience, the child is denied some of the stimuli available in the environment and may have different life experiences and see the world differently from the person who is not deprived. The parts of the body affected, the severity of the disability, and the degree to which the handicap is visible to others influence the nature of sensory deprivation and the perceptions that others have of the handicapped child. How others see the child and relate to him correlates with the child's view of himself, and acceptance of self is positively related to acceptance of others.

Within the above frame of reference, it was hypothesized that children in the twelve categories of handicap vary significantly in their reports relating to the five aspects of self concept being investigated. With the exception of the area of adjustment, the findings do not support the hypotheses set forth. Several factors may account for this. Even though sensory experiences for these groups of children may differ, it does not necessarily follow that one group has fewer or poorer perceptions than

another. A second factor is suggested by studies reviewed in Chapter IV. Independent studies investigated children with hearing and vision impairments and orthopedic involvements, and one conclusion was common to all -- problems in self perception do not arise directly from the handicap but rather from environmental factors, especially those relating to interpersonal relations. It would seem, then, that the findings reported above lend support to the view that the handicap, itself, is not the only crucial factor. How a handicap affects a child depends on the nature of the experiential and perceptual limitations but also on the attitudes of the significant people in his world and the use he chooses to make of the skills and abilities that he has available in the light of the goals that he holds as significant.

Problems in adjustment can emerge from the interaction of the child and his world, his failure to meet the expectations of significant people, and his doubt in his own ability to meet life's demands. In the area of adjustment, significant differences are found between children in the various categories of handicap and between the types of adjustment. It is in this area that the impact of the handicap becomes apparent. However, it is not suggested that a specific handicap requires a particular kind of adjustment, but rather that different kinds of specialized behavior may be necessary to cope with the specialized situations that are imposed by the disability.

#### Summary

Chapter VII reported the collection and analysis of data relating to the second sub-problem of this study -- the self reports of children in the various categories of handicap. It is concluded that the self reports of children, analyzed by handicap, do not reveal significant differences except in the area of adjustment.

## CHAPTER VIII

### FINDINGS RELATIVE TO SELF CONCEPT AND IDEAL SELF CONCEPT CONGRUENCY AMONG HANDICAPPED AND NON-HANDICAPPED STUDENTS

#### Collection and Analysis of Data

This chapter discusses the procedures for analyzing the data and the findings relative to the third and final sub-problem of this study -- the significant differences between the congruency of self and ideal self concepts of a selected group of physically handicapped and non-handicapped students. It may be presumed that self concepts and ideal self concepts are congruent when there is correspondence in the views an individual holds of himself as he believes he is and as he feels he would like to be. His evaluations evolve from social interaction with his family; his age-mates who appraise him and others in terms of the physique, skills, and codes valued by the peer group; and adults playing a variety of diverse roles in the larger community. Handicapped children, living in protected home and school environments, may face fewer life situations which force them to see themselves as significantly different from what they would like to be.

Data relating to self concept and ideal self congruency was obtained by means of the Q-sort, an instrument described in Chapter V and reported in Appendix F. Each student, in both the handicapped and non-handicapped groups, sorted 50 self-referrent statements in terms of whether he judged each statement to be descriptive of "me" or "not me." Two or three days



later each child sorted the same 50 statements as each item was judged to describe him as "I would like to be" and "I would not like to be."

The self sort and ideal self sort distributions for each child were correlated. The resulting coefficients served as a measure of the congruency of self and ideal self concept. The Q correlation were transformed into Z scores. Central tendencies and variability were measured, and the t-test was used to determine significant differences in congruency between the experimental and control groups. In addition, Z scores for four combined groups of handicaps were treated in like manner. Only related groups, each containing no less than 5 cases, were combined. Therefore, 8 of the 12 major categories of handicap used in this study were grouped.

A major purpose of this study was to gain insight into the content of the self reports of handicapped and non-handicapped students. Therefore, significant items relating to the self concept and ideal self concept reports were identified, and those which discriminated beyond the probability of chance between the experimental and control groups, when tested by the Chi-square statistic, were identified.

#### Findings Relating to Congruency

This research has sought to ascertain the differences between the self and ideal self reports of handicapped and matched non-handicapped students. Table 16 reports the findings relative to the Q-sort, designed to measure self and self ideal concept congruency. The handicapped children scored higher than the non-handicapped group, with significant differences at the .01 level. The results indicate that the experimental group reported greater congruence of self and self ideal concepts than did the non-handicapped group.

The scores for combined groups of handicapped children and matched

Table 16. Summary Statistics Relative to the Administration of the Q-Sort to Handicapped and Non-handicapped Students

Groups Tested	Total z scores	Min. z scores	$\bar{X}$ z scores	Range z scores	S.D. z scores
Experimental	38.64	.620	.585	1.30	.304
Control	26.17	.375	.401	1.25	.266
t = 4.021      p = .01					66 pairs, 65 df.

control subjects were tested for significance. Table 17 reports the findings for children with hearing impairment (H.I.), mild leg involvements (M.L.), leg involvements requiring the use of crutches or wheel chairs (C.W.C.), and non-visible handicaps (N.V.), and for the matched non-handicapped children.

Table 17. Summary Statistics Relative to the Administration of the Q-Sort for Combined Groups of Handicaps and Control Subjects

Group	N	$\bar{X}$ of z		S.D.		df.	t	p
		E	C	E	C			
H.I.	11	.699	.416	.198	.249	10	4.086	.01
M.L.	12	.720	.142	.200	.279	11	3.660	.01
C.W.C.	11	.506	.267	.240	.302	10	2.875	.02
N.V.	12	.512	.402	.245	.985	11	1.100	N.S.

Significant differences are noted for three groups, and for each the handicapped subjects report more self and ideal self congruency than do the non-handicapped. On the other hand, children with non-visible handicaps score



in the direction of greater congruency when compared to the non-handicapped group, but this difference is not significant. The size of the other groups of children classified by handicap is not sufficiently large to test for significance, but the scores for each is reported, with the z score for the experimental subjects indicated first, followed by the z score for the control students:

Vision impaired	1.83	1.59
Severe arm, leg	2.87	2.90
Misc., appearance	3.28	3.84
Miscellaneous	2.60	1.27

The handicapped students score higher in two categories than do the non-handicapped. Children with miscellaneous handicaps affecting appearance and those with both arm and leg involvements score lower than the non-handicapped children. However, these findings cannot be judged to be significant.

Items from the Q-sort which discriminate significantly between the experimental and control groups are reported in Appendix F. Students' reports of self concept and ideal self concept are included for purposes of comparison. Significant items in the self ideal sort indicate that the handicapped children want to be tall and do not want to be lacking in neatness or have a poor figure. These students report that they want to like their parents and do not want to be unpopular. However, they are more uncertain than the non-handicapped children about feelings toward their siblings. The experimental subjects report that they would like to have confidence in their own abilities and to be able to make things. Responses indicate that they are more uncertain than the non-handicapped group concerning arithmetic. A greater number of handicapped children report that they want to watch and listen to radio and television. Although

significant, the scores on this item are lower in the ideal sort than in the self sort. The experimental subjects indicate that they would not like to be a poor sport."

#### Results of Testing the Hypothesis

In studying the self concept and ideal self concept congruency among handicapped and non-handicapped students, the following hypothesis was tested:

11. The handicapped children register significantly more self concept and ideal self concept congruency than do physically non-handicapped children.

The hypothesis is sustained by the findings of this study. The higher total z score and the means for the handicapped children indicate that the handicapped children report more self and ideal self congruency than the non-handicapped students, and the t-test determined that this difference is highly significant at the .01 level. An analysis by handicap indicates that there are significant differences for three of the four groups submitted to statistical analysis. Only the results for the children with non-visible handicaps are not significantly different from those of a matched group of non-handicapped children, although the total score for the handicapped group is higher than that of the non-handicapped group. It is concluded, however, that the handicapped children as a group report greater self and ideal self congruency.

#### Discussion of Findings

This phase of the study has sought to measure the congruency of the reports of handicapped and non-handicapped children regarding the perceptions, beliefs, feelings, attitudes, and values which they hold as characteristic of themselves and of the persons they would like to be. It has been ascertained that highly significant differences exist in the reported

self and ideal self congruency of handicapped and non-handicapped children, with the former group evidencing greater congruency.

Reference was made in Chapter II to the view of Combs and Snygg concerning the common assumption that change in self is brought about by trying to achieve the self ideal, but they indicate that this is seldom true if behavior is motivated by immediate specific objectives rather than ideals removed from the present situation in both time and quality. However, Hawk, in his study reported in Chapter IV, concluded that children who saw themselves as they would like to be expressed a significantly higher degree of self confidence and less uncertainty about themselves. Perkins reported the study of Butler and Haigh in which it was found that successful client-centered counseling resulted in increased congruency.<sup>1</sup> The study of Hanlon, Hofstaetter, and O'Connor, reported previously, concluded that self concept and self ideal concept congruency was a normally distributed trait with an overall tendency to congruency, and maladjustment did not require that the self and self ideal be negatively correlated. Chodoroff cautions against assuming that there is a one-to-one relationship between adjustment and self and self ideal correspondence.<sup>2</sup>

This research appears to lend support to the last point of view. Handicapped children, as reported in Chapter VI, score significantly lower on items relating to adjustment than do non-handicapped children, but the former report significantly greater self and ideal self congruency than do the non-handicapped subjects.

It was hypothesized that the handicapped group would report greater

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Hugh Victor Perkins, "A Study of Selected Factors Influencing Perceptions of and Changes in Children's Self Concepts," (unpublished Doctor's Dissertation, New York University), 1956, p. 20.

2

Ibid., p. 122.

congruency than the non-handicapped group, because limited social contacts in protected home and school environments placed them in fewer psychological situations in which they were made to see themselves as significantly different from what they would like to be. Support for this viewpoint is found in Table 17 in which scores for children with four types of handicap are compared with those of matched non-handicapped subjects. Significant differences are noted for three groups. However, the null hypothesis cannot be rejected for children with non-visible handicaps who are compared with non-handicapped children, indicating that there are no significant differences beyond the probability of chance between the groups.

Therefore, this finding concurs with the conclusion of Cruickshank, quoted in Chapter IV, stating that, from an external point of view, nothing in the visible picture labels children with non-visible handicaps as being different, and because society views them as "normal," they operate as "normal" individuals. In this study Cruickshank also reported in the results of a sentence-completion test, designed to gain insight into the impact of a handicapping condition on a child, in which cardiac children gave more responses like those of the non-handicapped and unlike those of crippled children. In addition, he concluded that cardiac and non-handicapped children were judged more able to evaluate their parental relationships and general adjustment than were the crippled children. It is assumed, therefore, that significant differences are revealed in self and ideal congruency between children without handicaps and those whose handicaps are apparent.

Generally, handicapped children ascribe fewer negative descriptions to themselves in both sorts than do the non-handicapped children, suggesting that they feel less adequate and less able to accept threatening concepts into the self-picture.



Appendix F reports the total scores for the responses of the handicapped and non-handicapped students for the items of the Q-sort relating to the five aspects of self being explored in this research. Of the total scores reported, only the scores for the positively worded statements relating to physical factors indicate significant differences between the experimental and control groups in the self sort. A trend is noted for other significant differences to be revealed in the ideal self descriptions. Although differences of significance are noted in the ideal self sort responses, the scores reveal no pattern of response.

These findings indicate that physically handicapped children ascribe the same physical qualities and characteristics to themselves, as they would like to be, as do non-handicapped children, but they recognize their physical limitations in their self descriptions. This does not apply to negatively worded statements in the same area. However, if children can recognize their limitations, this is a positive step in the direction of a healthy approach to their disabilities and opens the door for counseling services where needed. Exploration by the counselor and child of the aspirations and goals that the individual reports and the major areas of ambivalence seems indicated.

In the self ideal sort children in the experimental group report that they want to like their parents, a source of assistance and care for disabled children but express more uncertainty than non-handicapped children about the feelings they would like to have for brothers and sisters. Sibling relations for the handicapped group deserve further study, but this result suggests that some of the impact of their handicap may come to these children in their relationships with brothers and sisters, a possible result for some boys and girls of inferior status and restricted roles in the family.

In both the self and ideal self sorts handicapped children express an interest in listening to the radio and watching television, an expected response in view of their reports of limited social participation. However, it is noted that fewer children select this item as descriptive of the person they would like to be, although it is significant in both sorts. There is an implication here that handicapped children would be receptive to other leisure time activities if they were accessible.

### Summary

This chapter described the collection and analysis of the data and reported the findings which related to testing the hypothesis posed by the third problem - self concept and ideal self concept congruency of handicapped and non-handicapped students. The conclusions of this study are as follows:

1. Handicapped children report significantly greater congruency of self and ideal self concepts than do non-handicapped children.
2. Children with non-visible handicaps are not significantly different from non-handicapped children in the self and ideal self congruency that they report.
3. Generally the handicapped children ascribe fewer negative descriptions to themselves in both sorts than do the non-handicapped children, suggesting that they feel less adequate and less able to accept threatening concepts into the self picture.
4. Inspection of the total scores for the grouped items in the self and ideal self sorts indicates that more often significant differences are found between the ideal self sorts of handicapped and non-handicapped students than the self sorts. The exception to this is in responses relating to physical factors, in which case significant differences are noted in the self sort.
5. The analysis of individual items indicate that the experimental group responds significantly differently from the control group to items relating to (1) appearance and physical skills, (2) parent, sibling, and peer relations, and (3) sportsmanship, self-confidence, and activity preferences.



6. Identical and almost identical responses are noted for the self and ideal self sorts of the handicapped children for items relating to (1) neatness, coordination, and active games, (2) relations with parents, siblings, and the "group," (3) drawing, constructing, reading, talking before the group, and completing the job started, and (4) attitude toward money.

## CHAPTER IX

### SUMMARY, CONCLUSIONS, AND IMPLICATIONS

#### Summary

Various aspects of the research are summarized in the material which follows.

Statement of the problem. This research has sought to investigate the significant differences in the self reports of physically handicapped and non-handicapped students. Specifically, this study investigated three sub-problems: (1) the self reports of the physically handicapped children and a matched group of physically non-handicapped children, (2) the self reports of the students in various categories of physical handicap, and (3) the self concept and ideal self concept congruency of handicapped and non-handicapped students.

The self concept is defined operationally in this study to include the unique perceptions and evaluations which the individual holds of himself in relation to the following aspects:

The physical organism

The significant people in his world and his relationship with them

The capacities, abilities, and skills he has for use

The objects, situations, and events which are meaningful and hold value for him

The situations which threaten the self picture and the adjustment techniques which he selects for use.

The ideal self uses the same descriptive components as the self concept

but in the frame of reference of what the individual would like to become. What the individual says he is as he describes himself to another person is the self report, which is not synonymous with the self concept but does give clues to the perceptual organization and motivations of the individual.

Data concerning the self reports and the self and ideal self congruency were gathered from the Mental Health Analysis of 200 items and the Perkins Q-sort, an instrument requiring the subjects to make a forced normal distribution of 50 self-referrent statements.

Background and significance of the study. Each student takes to the schoolroom certain potentials, feelings and attitudes, goals, and values which influence what he can perceive as significant and meaningful to him. Knowledge of the self concept of a child aids the teacher in recognizing the dominant influence that his unique perceptions exert on his attitudes toward school and learning. Such information is essential to the planning of classroom experiences that meet the interests, needs, and abilities of the individual.

Reports in the literature have indicated that the majority of the investigations of the self concepts of children have included subjects who were not handicapped and fewer studies have been made of handicapped children in this area. Trends in the investigation of the self concepts of handicapped children have been (1) to compare students with one specific handicap to non-handicapped children and (2) to compare groups of subjects with varying degrees of the same handicap. Many of these studies have been conducted in state schools, hospitals, and out-patient clinics. No studies have been made of the universe of handicapped children nor of a normal distribution of children with one specific handicap. Therefore, the conclusions drawn from these investigations can apply only to the

specific groups studied. It has been noted that the majority of the studies have sought to determine the "quality" of the self concepts and have served to label and evaluate children. Other studies of handicapped children have explored such specific dimensions of the self concept as reaction to failure experiences, social position in the classroom, attitudes of parents, rigidity of behavior, and related topics.

No investigation has been made of the self concepts of the students of the William S. Baer School for the Physically Handicapped, a public school serving the physically handicapped and educable population of Baltimore City and, currently, an adjoining county. For the majority of the children participating in this study, the school is organized, administered, and programmed within the same general framework as are schools for non-handicapped children, implying that the same situations and events hold meaning for students of both groups, and the same personal and educational needs and basic goals prevail for handicapped and non-handicapped pupils.

It was a basic assumption of this study that knowledge of the "content" of the self concept of the handicapped child -- his perceptions; his appraisal of his relationships and skills; his interests, aspirations, and goals; and his approach to threatening situations -- enables the teacher to function effectively in a number of areas:

Learning the problems that the child faces, the restrictions that he feels hinder their solution, and the frustrations that develop in these attempts

Helping the child make greater use of the skills and abilities in his area of handicap as well as those in which he perceives inadequacy

Guiding the child to learn more about his own assets and limitations and to make a variety of adjustments based on a knowledge of himself.

Assisting the child in establishing goals in harmony with his abilities and disabilities as well as the demands of society; in developing

self concepts and ideal self concepts that are more congruent as a means of promoting more effective learning<sup>1</sup>

Promoting the development of an emotionally healthy individual in order that he can make his adjustment in the broader society and economy of the community<sup>2</sup>

Providing the experiential background out of which the individual can make wise choices as he faces change in himself intellectually and physically and lives in a culture undergoing rapid change.

To these ends, this research has sought to investigate the self reports of physically handicapped and non-handicapped children, the self reports of students in various categories of physical handicap, and the self and ideal self concept congruency of handicapped and non-handicapped students.

Rationale. The rationale for this study consisted of the statement of a partial theory of the role of the self concept in human development and behavior which served to suggest the design of this study, prompted an organization to permit the interpretation of the data gathered, and influenced the scope and conclusions.

This self theory was discussed in the statement of six constructs together with evidence from the literature which supported each. The first of these constructs related to the innate drive of the human being to discover his potential and to actualize the self. The role of perception in patterning the world of the individual and giving direction to his behavior was the second construct that was developed. Another construct related to the emergence of the self concept as a result of the interaction of the

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Hugh Victor Perkins, "A Study of Selected Factors Influencing Perceptions of the Changes in Children's Self Concepts," (unpublished Doctor's Dissertation, New York University, 1956), p. 24.

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G. Orville Johnson, "Guidance for Exceptional Children," in Education of Exceptional Children and Youth, ed. William M. Cruickshank and G. Orville Johnson, (Englewood Cliffs, New Jersey: Prentice-Hall Inc., 1958), p. 631.

individual with other persons. The fourth construct focused on the emergence of the value system in the process of self development and its role in guiding the individual in his evaluation of subsequent experiences.

Next, the methods of dealing with perceptions that are inconsistent with the self concept were discussed. The final construct dealt with the reorganization of the perceptual field and behavior change. In addition, the major categories of handicap represented in this study were discussed in terms of the rationale of the self concept.

It was the purpose of this study to test the fundamental hypothesis: Physically handicapped students and physically non-handicapped pupils differ in the ways in which they view themselves and their world; they differ in the characteristics and qualities which they ascribe to themselves.

To facilitate the exploration of this hypothesis, eleven specific hypotheses were investigated. These were grouped under three sub-problems and are listed below:

1. Self reports of physically handicapped children and physically non-handicapped children

Physically handicapped students report themselves as significantly less adequate physically than do non-handicapped children.

Self reports of physically handicapped boys and girls reveal significantly less close personal relations and less social participation than do those of non-handicapped children.

Physically handicapped students report themselves as significantly less adequate in terms of the capacities, abilities, and skills that they have for use than do non-handicapped students.

Students with physical handicaps have a significantly different outlook on life and have significantly less satisfying work and recreational pursuits than do the non-handicapped.

Handicapped students report themselves as possessing significantly less emotional stability and use more physical manifestations in self adjustment than do non-handicapped students.

2. Self reports of students in various categories of physical handicap



Students in the various categories of handicap perceive themselves as significantly different in physical adequacy according to the nature of the disability.

There are significant differences in the ways in which pupils in the various categories of handicap perceive the important people in their world.

Students with different types of handicap vary significantly in their perceptions of the capacities, abilities, and skills they have for use.

The children in the various categories of handicap differ significantly in the objects, situations, and events which they identify as having meaning for them.

There are significant differences in the ways in which groups of students in the various areas of handicap adjust to threatening situations.

### 3. Self concept and ideal self concept congruency among handicapped and non-handicapped students

The handicapped children register significantly more self concept and ideal self congruency than do physically non-handicapped children.

Research design. In this study a random selection of groups was not feasible. The sample consisted of the testable population of the William S. Baer School for the Physically Handicapped, serving Baltimore City and an adjoining county, and a group of non-handicapped students matched in sex, race, socio-economic level, grade, intelligence quotient, and reading level selected from seven elementary and junior high schools in Baltimore City. The children, in grades 4-9, tested at a minimum of 4.0 reading level. Generally, the handicaps of the students in the experimental group were hearing impairment, vision impairment, severe and moderate motor disabilities, non-visible handicaps necessitating restriction in activity, and disabilities affecting appearance.

The treatments related to testing for significant differences (1) the self reports of the experimental and control groups, (2) the self reports of children in various categories of handicap, and (3) the self concept

and ideal self concept congruency of the handicapped and non-handicapped children.

Selection of the instruments. Two pencil-and-paper instruments, judged sufficiently reliable and valid for this study, were used to obtain data.

The Mental Health Analysis consisted of 200 "yes-no" questions, classified as "assets" or attitudes, skills, aspirations, and achievements to be developed and "liabilities" or threats to emotional security impeding the attainment of objectives and satisfactions. Reliability coefficients for the categories and total scores are reported to range from .89 to .90 and coefficients for the ten components from .80 to .85. In the construction of this instrument attention was given to both content and concurrent validity by selecting the most discriminating from a universe of questions, wording to disguise the intent of the items, and computing phi coefficients to determine the power of each item to discriminate between those scoring high and low. A median phi coefficient for all items was .45.

For the experimental and control groups, scores were calculated for "assets" and "liabilities" and a total score indicating adjustment was determined. These scores were tested for significant differences. By grouping related components, this instrument served to gather data related to the five aspects of the self concept being explored: (1) physical organism, (2) interpersonal relations, (3) skills, capacities, and abilities, (4) meaningful objects, situations and events, and (5) adjustment. By testing the component scores and groups of component scores for significant differences, those aspects of the self reports for which the null hypothesis had to be rejected were noted. In addition, an analysis by handicap investigated significant differences in the self reports in terms of the nature of the handicap.

The Q-sort used in this study was designed by Perkins and required the child to make two normal distributions of 50 positive and negative self-referent statements for the purpose of measuring (1) his self report of items descriptive of "me" and "not me" and (2) his ideal self report, "I would like to be" and "I would not like to be." By correlating each child's self sort and ideal sort, a measure of his self and ideal self congruency was obtained. By testing these scores for significant differences, it was possible to compare the handicapped and non-handicapped groups in terms of congruency. The Q-sort has a reliability coefficient of .65 for children in grades 4 and 6 as determined by Perkins and of .925 for a small group of ninth grade handicapped children who participated in this study. By comparing the Q-sort results with those obtained by an external measure of self concept to ascertain validity, a mean percentage of agreement of 70% was obtained by Perkins.

Collection and analysis of data. Data for this study was collected during May and June, 1961, from 72 children in the William S. Baer School and matched individuals located in 7 elementary and junior high schools. The self sorts, ideal self sorts, and the Mental Health Analysis were administered on 3 or 4 consecutive days. Adjustments in the testing procedure was made for the hearing impaired children in order to minimize misunderstandings that could arise from their language problem. Adaptations in testing procedures for children with vision and communication disabilities, brain damage, and coordination problems affecting writing had to be made in order that these children not be penalized for their handicapping conditions.

An analysis by items gave clues to the "content" of self perceptions of the two groups of children being studied. The testing of the individual items of the Mental Health Analysis and the Q-sort by the Chi-square

statistic indicated those items for which significant differences were noted between the experimental and control groups. A similar treatment was used for total component scores obtained from the former instrument. The scores for the major divisions and total scores of the Mental Health Analysis were measured by the t-test to determine whether obtained differences in means were larger than could be expected by chance. Analysis of variance designs were used to test for significant differences between the self reports of the children in the categories of handicap represented in this study. In order to test for significant differences between the reported self concept and ideal self concept congruency of the experimental and control groups, Q-correlations were computed, and Fisher's "r to z" transformation tables were used to change each correlation to a z score. The t-test was used to compute significant differences.

The .05 point of significance was designated as the level at which the null hypothesis was rejected.

Basic assumptions. The basic assumptions underlying this research were:

1. Knowledge of the self concepts of students is significant in determining their educational needs and planning an adequate educational program.
2. The self reports of physically handicapped and non-handicapped students are not synonymous with the self concepts of these individuals but do provide clues to their perceptual organization and motivation.
3. Valid and reliable self reports can be obtained from the Mental Health Analysis and the Q-sort.
4. Children in grades 4 to 9, reading at a minimum of fourth-grade level on standardized reading tests, have sufficient skill in reading to use the instruments selected and sufficient maturity to report their self concepts with insight and understanding.
5. To the school administrator, concerned with guiding the planning of a sequential educational program, the grade-level placement of students is a more crucial variable than age when age and grade-level cannot be equated. Therefore, grade-level rather



than age was selected as one of the six variables on which the experimental and control groups were matched.

6. All uncontrolled variables, not accounted for in this research, that are likely to influence the self reports of the subjects are randomly distributed among both the handicapped and non-handicapped groups and, therefore, do not affect the results.

Delimitations of the research. Recognition was made of the fact that the self report was at best an approximation of the self concept of the child. In addition, the instruments used provided only a partial description of the self picture and presented a limitation in obtaining precision in the study. The investigation was also limited in terms of the kinds of children studied and the size of the sample. The conclusions of this study apply only to the selected group of physically handicapped students in the William S. Baer School and the control group of non-handicapped children who participated in the study. However, these conclusions may serve as hypotheses for further research concerning the self reports of other groups of handicapped children and for investigations of the self concepts of individual children with physical handicaps.

### Conclusions

The conclusions of this research consist of a series of general statements which emerge from the analysis and interpretation of the findings reported in the preceding chapters.

1. The physically handicapped children in this study report themselves as not significantly different from non-handicapped students in assets or attitudes, aspirations, skills, and achievements contributing to self actualization. Although the handicapped children score lower on the assets which they ascribe to themselves, the differences between this group and the non-handicapped group are not statistically significant.

Although the children in the experimental group score lower in the area of interpersonal skills, no significant differences are noted between

this group and the control group. Handicapped children ascribe to themselves more positive statements relating to skills and abilities and fewer negative statements than do the non-handicapped children. In addition, the former group of children report themselves as adequate in outlook and goals. No significant differences are noted between the two groups in the component scores for behavioral immaturity and emotional instability.

The handicapped children take a more positive stand for sportsmanship than do the non-handicapped. In comparison with the control subjects, more handicapped children report themselves as liking reading and watching television. More handicapped than non-handicapped children feel that they can have "a good talk" with their teachers, report that they like the traits of their friends, and indicate that their parents let them make decisions for themselves.

2. The handicapped children report themselves as being significantly less free of liabilities which can threaten the attainment of satisfactions and objectives and can contribute to problems of adjustment than do non-handicapped children. Significantly fewer handicapped than non-handicapped children ascribe to themselves positive physical characteristics. They report themselves less adequate than children without disabilities in running and jumping, skills related to use of the legs and feet, and fewer handicapped children report that they like to "play hard."

The handicapped children report that they have less satisfying close personal relations and less opportunities for social participation than do non-handicapped children. More children in the experimental report that they lack interesting leisure time activities, do not participate with their peers in organized groups, do not know a person with whom to trust secrets, and cannot depend on others. More ambivalence is expressed by handicapped children concerning their role as a leader, and fewer handicapped



than non-handicapped children indicate that they can tell interesting stories.

3. The self reports of the children do not differ significantly in terms of the nature of the handicap in the areas of physical adequacy, interpersonal relationships, social skills, and goals and values. However, significant differences, at the .05 level, are noted between the children in the classifications of handicap in the area of adjustment.

The most significant differences in adjustment, noted at the .01 level, are found between children with mild leg involvements and hearing impaired children. Of all the groups of handicaps, children with mild leg involvements requiring little or no support score highest and those with communication disorders lowest. Several factors are important to the interpretation of this finding. The barrier quality of a communication disorder keeps hearing impaired children from using information from the environment to the fullest, restricts their life-space, and inhibits them from solving their personal problems and resolving their anxieties by verbal means. The life-experiences and the nature of the problems with which they must cope differ from those of hearing children. It would follow, then, that hearing impaired children adjust less well to life situations when judged by the same criteria as hearing children. On the other hand, the child whose only handicap is a mild leg involvement requiring no brace or crutch is not faced with sensory deprivation, is not greatly limited in exploring his environment, and does not face the threats of recurrent illness. He is relatively free of many of the restrictions facing children with other types of handicaps. Little or no restriction imposed by the handicap stands in the way of his developing his skills and abilities to the fullest and meeting the expectations of the significant people in his world.

4. As a group boys and girls with handicaps report significantly greater congruency of the self and ideal self concepts than do the non-handicapped children. However, children with non-visible handicaps do not report themselves as significantly different from the non-handicapped children in this respect. This supports the theory proposed by Cruickshank that these children are viewed by society as not different from non-handicapped children and, therefore, they function more like non-handicapped children than children whose handicaps are apparent.

Handicapped children give identical or almost identical responses (within 4 responses and within the same pattern) in both the self sort and ideal self sort for items relating to (1) being neat, not being clumsy, and liking active games (2) joining in what the group is doing, (3) liking their brothers and sisters and having parents who do not expect too much, although many responses indicate ambivalence for both items, (4) drawing pictures, taking things apart and putting them together, talking well before the group, working until the job is finished, and liking reading, and (5) thinking that money is important, although responses in this area indicate some division in opinion.

In comparing self sort and ideal self sort scores relating to the five aspects of self being studied, differences greater than can be accounted for by chance are found more often between the self ideal descriptions of the handicapped and non-handicapped children than between the self descriptions. However, no specific pattern for the direction of the ideal sort responses of handicapped children is noted. This generalization is not true, however, for items relating to physical factors. In this area there are significant differences in the self descriptions but no significant differences in the ways in which these groups of children reported themselves as they would like to be. As physical organisms handicapped children

do not want to be different from non-handicapped children, but they do recognize their inadequacies and report these, a prerequisite to acceptance and healthy compensation.

5. The handicapped students report themselves as significantly less well adjusted than do students without disabilities. The lower total scores on items relating to adjustment give indication of less adequacy in this area for the handicapped children. This coupled with the reported lack of freedom from liabilities indicate problems of adjustment.

Most significant of the areas of adjustment investigated is the one relating to feelings of inadequacy, feelings which can arise from lack of satisfying close personal relations and inability to live up to the expectations of others. It is in this area that the most significant differences between the handicapped and non-handicapped children are noted. More handicapped than non-handicapped children report themselves as (1) being unable to depend on others, (2) having frequent need to make excuses for themselves, (3) finding it hard to get along with many people, (4) having difficulty making friends with the people they like, (5) being judged by others as not dependable, (6) being less able than their friends to do things well, (7) being unable to get the best seat at a program, and (8) needing frequent help from their teachers. In addition, it is noted that, generally, handicapped children ascribe fewer negative descriptions to themselves than do the non-handicapped children in both the self and ideal self sorts, suggesting that they do not feel sufficiently adequate to accept threatening concepts into the self picture readily. In another significant area, a larger number of handicapped than non-handicapped children indicate that they are significantly less free of nervous manifestations. They find it more difficult to take things easy and to go to sleep and report that they often have headaches and stomach-aches.

### Implications

In terms of the rationale of this study, the school that seeks to deal effectively with behavior must consider how children view themselves, aid them to perceive themselves and their world in satisfying ways, guide them to discover their liabilities under conditions that are relatively free from threat, and help them set goals toward which they can make satisfying movement. As a result of the findings of this study, consideration is given to implications for school planning that will aid the handicapped students in making adequate self perceptions and in moving toward new experiences with feelings of challenge rather than threat. These implications encompass the activities of all the professional staff--principal, teachers, pupil-personnel worker, social worker, therapists, and nurse.

Knowledge of how individuals perceive themselves. A major implication of the findings of this study indicates that the school take steps to determine, insofar as possible, the personal meanings of the individual child. The self reports of handicapped children do not reveal significant differences in terms of the classification or nature of the disability. Therefore, much of the behavior considered "typical" of the handicapped evolves from the conflict situations in which the children find themselves and is not intrinsic in the disability, implying the need for studying children as individuals rather than as groups of children with specific handicaps.

The effectiveness of the program for exceptional children depends to a large degree on the recruitment, selection, and pre-service and in-service training of personnel to staff the school. Ideally the staff should have, or have the potential for, sensitivity to see, hear, and "read" what children do, say, and write; a working knowledge of the basic



principles of human development; and a knowledge of the nature of the physical handicaps represented in the school population and the effects of such disabilities on the life-space of the students. Cooperative program evaluation and staff planning activities should alert teachers to their needs for continuous professional growth through university courses and participation in local workshops. The availability of a good professional library is important if teachers are to know the current developments in educational theory, the latest information in the field of child development, and the most recent research in the field of special education.

Resources within the school should be used to their fullest. Medical and educational records contain important information. To facilitate the use of medical records, a portion of the two days on which teachers report for duty prior to the formal opening of school can be reserved for this activity. During this time the nurse is free to serve as a resource person for the interpretation of the records. Additional information about individual children can be gained from personnel whose specific responsibilities enable them to see children in different situations and under different conditions. Participation of the therapists and the pupil personnel worker in the nurse-teacher conferences would permit a team approach to the study of the child.

Knowledge of how individual children see themselves and the world can be obtained in more specific ways. Frequent use of problem-centered group discussions in social studies and literature, the writing of autobiographies and daily experiences, and the observation of the child in a variety of situations enables the teacher to get clues of the child's self perceptions. More time is needed for the pupil personnel worker and social worker to "learn" the handicapped child and to confer with him with sufficient frequency to establish rapport so that the child is able to share

his fears and anxieties, interests and aspirations, and successes and failures.

Development of satisfying perceptions. Findings of this research indicate that the handicapped children report having less satisfying perceptions of themselves as physical organisms, less satisfying close personal relations and opportunities for social participation, and more feelings of inadequacy than do a matched group of non-handicapped children. The school must assume responsibility for providing the experiences that will help these children perceive themselves as wanted, accepted, able, and responsible.

Specialized services in physical and occupational therapy, speech correction, clinic sessions, and frequent pediatric examinations should be continued in the school. However, more opportunities should grow out of these services for explaining the nature of the disability to the child, interpreting the meaning of the impairment as "different" rather than "not as good," acquainting the child with the restrictions that the handicap implies as well as the areas of physical activity that are open to him, and guiding the child to see his responsibilities toward self improvement. The school should plan a course in good grooming to enable the handicapped boys and girls to make the most of their physical assets and present themselves before others in a favorable manner.

The handicapped child needs the guidance and support of home and school in establishing close personal relationships, participating in group activities with his age-mates, and engaging in satisfying leisure time activities.

Adult education groups and P.T.A. programs can play a significant role in helping parents gain insight through group experiences in understanding, accepting, and adjusting to their handicapped children; to communicate



valuable information to the school; and to develop an understanding of the purposes and goals of the educational program. The school should review the attempts that have been made in this direction, seek to determine the reasons for lack of success of past programs, and make plans in the light of present knowledge and past experience.

Even when it is not possible to change the situation in which the child lives outside of school, an attempt should be made to change self perceptions by making the classroom environment radically different from what the child has experienced previously. A climate of warmth, understanding, acceptance, and support can help the child develop new perceptions of himself and his relationships with others.

The child should have many opportunities to develop positive identifications with his fellow men through participation and vicarious experiences with worthy people varied in race, color, creed, abilities, and disabilities. What the child does to actualize the self is likely, therefore, to contribute to the actualization of those with whom he identifies. In turn, their achievements become his achievements. The provision of opportunities to meet and identify with handicapped adults who are making a contribution to society, including handicapped teachers, is an area deserving study.

The provision of opportunities for group participation for handicapped children is another area which should be explored. Readiness for broader social participation can be fostered within the protected environment of the school by helping the children prepare for new psychological situations. Opportunities in the school which provide for social interaction, wholesome conflicts and accommodations, applications of social controls, the exercise of leadership, and the acceptance of responsibilities should be utilized toward this end. Maximum use of group situations in the classroom

instructional program and broader participation in student government can aid in the building of social attitudes and values. Integrating children with various handicaps in the classrooms, whenever and wherever possible, groups children with differing strengths and disabilities and enables them to use the skills learned in their unique instructional programs. Hearing impaired children can use their skills in lip reading and speech as they participate with hearing children. The orthopedically involved child can learn to participate in psychological comfort with those who can walk, learning to be as independent as possible but accepting help with grace when necessary.

Opportunities for broader social participation can be provided in a number of ways. Inviting children from other schools to share a science fair, art exhibit, musical program, play, or party can give handicapped children opportunities to plan cooperatively, assume the roles of host and hostess, and develop feelings of adequacy as they have opportunities to share their skills and abilities. Trips to other schools, concerts, museums, historical points, and restaurants can enrich the experiences of these children and provide them with ideas to share with others, as well as to train them to move through the broader community. A survey can be made by school P.T.A. of available resources in the community that can appropriately provide opportunities for group participation for these handicapped children. Service clubs can be approached concerning the availability of transportation. At the same time parent counseling may be needed if the home does not value and encourage such participation.

As the child plans to transfer to a neighborhood school or a comprehensive high school, other types of preparation may be necessary. The school must be ready to receive the child. Many educators have had no contacts

with handicapped children, are not comfortable in working with them, and lack understanding of the accomplishments these children have developed in their special classes. In many situations effective integration may require that a well-developed orientation program be made available to educators, not for the purpose of developing specialists, but for developing positive and accepting attitudes toward handicapped children. In addition, interchange of teachers between the regular schools and the school for the physically handicapped and the promotion of worthy specialized teachers to administrative and supervisory positions in regular schools are indicated.

Consideration must also be given to the child to be integrated into the regular program--the skills and information necessary for academic progress and the problems he may face in adjusting to the world of the non-handicapped. Integration is most successful when the handicapped child sees values in the activities of the new group and can participate in some activities on relatively equal terms. In preparation for experiences in the non-handicapped society, the handicapped child must have full knowledge of his assets, be aware of his disability, appreciate the significance of medical recommendation, and accept the limited participation which his handicap imposes. In addition, the child who has been a leader in a small school of handicapped children should be prepared for the possibility of needing to assume other roles in the group.

The ideas discussed above indicate ways in which the school can help the handicapped child move toward others, but he cannot achieve group acceptance if society is not prepared to accept him. Many problems of the handicapped child stem from social phenomena and must be remedied by social action. The use of mass media and talks before civic groups, industrial groups, P.T.A. organizations, church groups, service clubs, and

school assemblies can aid in communicating to the public an understanding of the strengths and needs of the handicapped person. There is a need to study ways in which the public can participate with the handicapped child. Currently service clubs offer opportunities for enriched experiences to groups of handicapped children and adults through hotel parties, theater parties, and boat trips. There is need here to educate members of these service clubs to opportunities which handicapped children can handle for social experiences with non-handicapped individuals directed toward the integration rather than the segregation of the handicapped population.

The school has an important role in helping handicapped children develop feelings of adequacy by giving them opportunities for positive self experiences. Basic to this is the need for a democratic classroom where there is respect for the needs, integrity, and potential of each member and where there are opportunities for appreciation and success. In such a group setting old experiences can be explored for new meanings, and the child is not penalized for mistakes as he attempts to break through established patterns and discover new self perceptions.

New experiences can be provided as a medium for the child to develop realistic perceptions of his strengths and weaknesses and to establish new orientations in a classroom rich in stimuli providing extensive opportunities to experience--to interact with others, to solve problems, to experiment with equipment and ideas, and to express thoughts and feelings through a variety of media. Cooperatively planned activities calling for a wide variety of skills provide many opportunities for worthwhile group contributions and for group and self evaluation, leading to more accurate self appraisal.

In the light of their expressed interest in reading and television viewings, handicapped children can be guided to use these media as a source of



vicarious experience yielding rich ideas which, when coupled with instruction in the art of conversation, can become an asset in both the adult and peer group. Planned in-school television viewing, development of criteria for program selection, and discussion of evening programs in the light of these criteria can help these boys and girls become more discriminating viewers. Attention should be given to the school library to make it an integral part of the school program. A trained librarian, more comfortable and colorful surroundings, an adequate plan for book circulation, and provision for materials to move into classrooms in sufficient quantities is called for. As the school includes in the program opportunities for the students to become intelligent and enthusiastic spectators of sports and introduces them to music appreciation, arts and crafts, varied shop experiences, collecting as a hobby, and game skills such as checkers and appropriate card games, these children can develop interests and skills which may develop into satisfying leisure activities for life as well as help them win a place in social groups.

Additional considerations should be made for the children with communication problems. The school, restricted in design from providing an expansive program in athletics, can plan ways to provide hearing impaired children with opportunities to develop abilities in sports and dancing and to participate with hearing children in these areas. This would entail the cooperation of nearby schools in sharing their gymnasium, pool, and athletic field facilities in unscheduled periods and in the "off season."

Discovery of liabilities. A warm, accepting classroom climate and many opportunities to discover his abilities and to experience success contribute to the self enhancement of the individual. It is in such a setting, relatively free from tension and threat, that the child can discover his liabilities and clarify the boundaries between what is possible and not

possible. The child must become aware of his disability and its implications at the same time that he may need guidance so that the impact of this knowledge will not make him become overly involved in his handicap and lost in self pity. Where possible the child needs help in reducing the effects of the handicap, but when the condition cannot be corrected, he may need guidance in learning how to live with and compensate for his impairment by attaining recognition and feelings of adequacy through desirable forms of work and recreation.

Because there is a higher incidence of adjustment problems among handicapped children, there is greater need for supportive services for them than is true for the general school population. The handicapped individual must develop an accurate concept of his potential abilities and his disabilities, the kinds of activities in which he can participate in the total society, and his ability to apply these understandings to new situations.

Development of goals. Finally, there is an implication that the whole area of the goals of handicapped children is in need of study. Although handicapped children report themselves as not significantly different from non-handicapped children in their outlook and goals and as having significantly greater self and ideal self congruency than do non-handicapped children, there are indications that these phases of the self report may not suggest as positive and healthy an orientation to the world as would appear on the surface.

One questions the meaning of greater congruency for those children whose handicaps are apparent and whose aspirations and goals evolve from experiences in protected home and school situations with less opportunities to participate in the broader social environment. In addition, the handicapped group generally reports feelings of inadequacy and problems of adjustment. In their self reports do these children tend to report



themselves in some areas as they would like to be rather than as they are? Are they unable to accept negative evaluations of themselves? What are the specific and personal aspirations and goals of individuals in the school for the physically handicapped? Are these in harmony with what they can attain?

Closely related to goals is the whole area of occupational planning. Children who make satisfactory academic progress go on to comprehensive high schools where plans for their life work can be made and appropriate training received. However, a large number of students, because of lack of aptitude for academic learning, severe communication disorders, over-ageness, and other problems imposed by their handicaps, give little or no indication of completing high school. Many of these children can be trained to fill useful positions in society, and for them training should start at the junior high school level. The area of occupational training for the non-academically inclined and overaged requires careful study with a view toward offering training within the school, planning part-time attendance at specialized schools, and instituting work-study programs.

This research investigated the self reports of physically handicapped and non-handicapped students to the end that the findings suggest critical areas in the life of a handicapped child with which the school must be concerned if it is to provide an educational program to meet his needs. It should be noted, however, that the findings of this study apply only to the children who participated and are not applicable to other groups of handicapped and non-handicapped children, although they may suggest hypotheses for investigations of other groups of children. The personnel of the William S. Baer School can look on these findings as applying to the group of handicapped children studied and not to each

individual in the group. However, the findings can alert the staff to critical areas to be investigated for an individual child.

APPENDICES

APPENDIX A

INTELLIGENCE AND ACHIEVEMENT TESTING PROGRAMS

September, 1960

Grade 4	Kuhlmann-Anderson Test: Form D
Grade 5	Stanford Elementary Battery: Reading and Arithmetic
Grade 7	Otis Quick-Scoring Mental Ability, Beta Test, Form DM
Grade 9	Otis Quick-Scoring Mental Ability, Gamma Test, Form AM
	Stanford Advanced Reading Test, Form JM
	Stanford Advanced Arithmetic Test, Form JM

February, 1961

Grade 5	Large-Thorndike: Verbal Battery, Level 3
Grade 6	Stanford Intermediate Battery: Reading and Arithmetic
Grade 7	Stanford Advanced Reading Test, Form JM
	Stanford Advanced Arithmetic Test, Form JM

## APPENDIX B

## WARNER, MEEKER, EELLS INDEX OF STATUS CHARACTERISTICS

Occupation Score

- 1 Professionals, proprietors of large businesses
- 2 Semi-professionals, smaller officials in large businesses
- 3 Clerks, kindred workers
- 4 Skilled workers
- 5 Proprietors of very small businesses
- 6 Semi-skilled workers
- 7 Unskilled workers

House Type

- 1 Excellent houses
- 2 Very good houses
- 3 Good houses
- 4 Average houses
- 5 Fair houses
- 6 Poor houses
- 7 Very poor houses

FORMULA

- 4 X occupational score \_\_\_\_\_
- 3 X score of income score \_\_\_\_\_
- 3 X house type score \_\_\_\_\_
- 2 X neighborhood score \_\_\_\_\_
- Total \_\_\_\_\_

Source of Income

- 1 Inherited wealth
- 2 Earned wealth
- 3 Profits and fees
- 4 Salary
- 5 Wages
- 6 Private relief
- 7 Public relief

Neighborhood

- 1 Most exclusive section of town
- 2 Area well above average
- 3 Area "nice" and "respectable", not inhabited by society.
- 4 "Average" neighborhood of working man
- 5 Area close to industry or railroad, all kinds of people
- 6 Edge of slum
- 7 Strictly a slum area

TOTAL OR SOCIAL STATUS SCORE

- 12-22 Upper class
- 25-34 Upper-middle class
- 37-50 Lower-middle class
- 54-63 Upper-lower class
- 67-84 Lower-lower class

## APPENDIX C

## Q-SORT STATEMENTS, DIRECTIONS, AND COMPUTATIONAL FORMS

Q-Sort Statements

1. I look on the bright side of things.
2. I understand the kind of a person I am.
3. I am a fast runner.
4. I am not neat.
5. I can take a joke on myself.
6. I cannot talk well in front of a group.
7. I join in doing what the group is doing.
8. I am a leader.
9. My clothes are different than the kind other people wear.
10. I do not like to make things.
11. I keep working until my work is finished.
12. I don't like arithmetic.
13. I do not like animals.
14. I get excited or upset easily.
15. Other people want me to tell them what to do.
16. I draw pictures.
17. I am unpopular.
18. I feel money is very important.
19. I am good in my school work.
20. I can jump well.
21. I can't seem to keep my mind on school work.
22. I have nice hair.
23. I am shy.
24. I do not like school.
25. I have poor health.
26. I do not have a good figure.
27. I have lots of energy.
28. I am not a good sport.
29. I have a brother or a sister that I don't like.
30. I am good looking.
31. I am hurt by criticism.
32. I cannot throw a ball well.
33. I dress so people will notice me.
34. I like reading.
35. I can take things apart and put them together again.
36. I wear bright colors.
37. My parents let me decide things for myself.
38. I like my parents.
39. I am clumsy.
40. I am weak.
41. I cannot make up my mind.
42. My parents expect too much of me.
43. I get places on time.
44. I am tall.
45. I do not like active games.



46. I am afraid to take chances.  
47. I have confidence in my own abilities.  
48. I watch and listen to TV and radio.  
49. I take part in class discussions.  
50. I am an unhappy person.

### Directions for Administration of Self Sorts

Here you will find 50 statements of things people say or feel about themselves.

First: Read all statements carefully. Then place a plus (+) in front of the ones that you think all the kind of person you are. (would like to be) and a minus (-) in front of the ones that are not like you (would not like to be).

Second: Turn to the sheet with the rows of boxes in it. Of the statements marked plus (+) pick out two that are most like you. Put the numbers of these in the two boxes in column 1. Cross out these two statements so you won't be recording them again.

Third: Pick out five statements that are next most like you. Put their numbers in the boxes in column 2. Cross them out on the list. Then pick out ten statements that are next most like you. Put their numbers in column 3. Cross them out.

Now: Pick out two statements of the ones you marked minus (-) that are least like you. Put their numbers in the boxes in column 7. Cross them out. Next pick out five that are next least like you. Put their numbers in the boxes in column 6. Cross them out. Finally, pick out ten statements marked minus that are next least like you. Put their numbers in the boxes in column 5. Cross them out.

You will have 16 statements left. Put their numbers in Column 4.

RAISE YOUR HAND IF YOU HAVE MORE OR LESS THAN 16 STATEMENTS LEFT.

If you want to make any changes, you may erase.

Q -- SORT DISTRIBUTION

ME - NOT ME


Column  
Number

1

2

3

4

5

6

7

ME

NOT ME



## APPENDIX D

## ORIENTATION AND DIRECTIONS FOR THE TESTING PROGRAM

First Day

1. Establish rapport and set up the purpose.

Hello, my name is \_\_\_\_\_. I know that you must wonder why you were asked to leave your classroom to come to this room. I've come to your school to ask you to help me. I need the help of some regular boys and girls, just like you, in several schools throughout our city. I am taking part in a scientific study to find out how boys and girls think and feel about things. This is a very important study, because it will help people who work in schools to understand boys and girls, to know what students like and dislike, what they find interesting and boring, and what they feel is important in life. When we learn these things from many boys and girls, we will be better able to make school an interesting and worthwhile place.

This study can only be helpful if it shows what boys and girls your age are really like. I hope that you will feel comfortable enough to put down just how you feel and what you think. You like some things, and you don't like others. You feel good about some things, and you feel differently about others. No one in this school will ever know what answers you gave. No one in this school will be able to pick up these papers and tell which is yours, because no paper will have a name on it, only a number. Because I go to a number of schools, I have to be sure that the same number is not used twice. Therefore, I have given each person a number. (GIVE OUT CODE SLIPS.) On this slip you will see your name, grade, school, and a number. It is this number that you will write on any paper you receive. You will not write your name.

2. Administer the Q-Sort (Self Sort).

(DISTRIBUTE THE STATEMENTS.) Boys and girls, read these sentences silently. Are there any words you do not understand? These sentences tell some things about you and some things that are not like you at all. Read them through again and think, "Which ones are like me?" and "Which ones are not like me?" (DISTRIBUTE THE FORM FOR RECORDING ANSWERS - "ME-NOT ME.") On this paper, write the number that appears on your slip. (COLLECT SLIPS TO USE IN FUTURE TEST SESSIONS.) Write the date. (FOLLOW DIRECTIONS FOR ADMINISTRATION OF THE Q-SORT. NOTE ABSENTEES.)

3. Prepare students for the next day.

Did you enjoy what you did today? Would you like to continue with this study? Thank you for coming. I'll ask you to come two (or three) more times, and what I'll ask you to do will not be very different from what you did today. (AS STUDENTS HAND IN PAPERS, BE SURE THE CODE NUMBER IS ON EACH.)

Second Day

1. Note absentees, prepare children for this testing session, and administer the Mental Health Analysis.

Good morning, boys and girls. It's so nice to see you again. I hope that you will enjoy what we're going to do today. (DISTRIBUTE TEST BOOKLETS AND CODE SLIPS.) On the booklet write the date and write your number in place of "name." Today, you will have an opportunity to tell how you think and feel about many things that are important to boys and girls. (FOLLOW DIRECTIONS. SEE MANUAL, PAGES 18-19. INDICATE WHAT PART OF THE TEST IS TO BE COMPLETED. WHERE THE TEST IS GIVEN IN TWO SITTINGS, FOLLOW SIMILAR DIRECTIONS FOR THE SECOND PART THE NEXT DAY.)

2. Close this session and prepare students for the next day.

Thank you for coming today. I am sure that the information that you have given us will be very helpful. Tomorrow we will have another period together in which you will have an opportunity to give us some interesting information about yourself. (AS CHILDREN LEAVE, COLLECT BOOKLETS AND CODE SLIPS. BE SURE EACH CHILD RECORDED HIS CODE NUMBER ON HIS BOOKLET.)

Last Day

1. Note absentees and orient children to the testing for this period, the administration of the Q-Sort (ideal self sort.)

Today we complete this part of the scientific study. You will help us once again by giving us information about how you think and feel so that those of us who work in schools can know our boys and girls better. Today, the sky is the limit, for you will have an opportunity to tell the kind of person you would really like to be. (DISTRIBUTE THE STATEMENTS.)

Today, as you read these statements, think about the kind of person you would like to be. Some of these sentences describe the kind of person you would like to be. Some tell the kind of person you would not like to be. (DISTRIBUTE FORM FOR RECORDING, "WOULD LIKE" AND "WOULD NOT LIKE TO BE." DISTRIBUTE CODE SLIPS.) Write your number and the date. (FOLLOW DIRECTIONS FOR ADMINISTRATION OF Q-SORTS.)

2. Express appreciation to the students for their cooperation and collect all materials.



# APPENDIX E

## MENTAL HEALTH ANALYSIS ITEMS AND COMPONENT SCORES WITH X<sup>2</sup> AND P FOR SIGNIFICANT ITEMS AND TOTAL SCORES

Items	Experimental		Control		X <sup>2</sup>	P
	R	W	R	W		
<u>I. Physioal Factors</u>						
<u>Freedom from Physical Defects</u>						
17. Do you worry because your legs are too large or too small?	65	7	66	6		
18. Are you troubled because your chin does not look right?	70	2	71	1		
19. Are you unhappy because people notice that you have a scar or mark on your face?	71	1	69	3		
41. Do you feel bad because pimples or marks on your skin keep you from looking nice?	53	19	52	20		
45. Do you feel bad because your body is not as well-formed as you would like?	57	15	58	14		
68. Do you worry about the things people say about you because you are too thin?	64	8	68	4		
69. Are you concerned because there are many things you cannot do because of your weight?	59	13	56	16		
70. Are you unhappy because of the way your teeth look?	57	15	60	12		

276

Items	Experimental		Control		X <sup>2</sup>	P
	R	W	R	W		
91. Do you feel bad because there is something the matter with your mouth or lips?	68	4	69	3		
92. Do you worry because there is something wrong with your feet or legs?	55	17	66	6	5.172	.03
116. Do you worry because you think your nose is not nice looking?	67	5	72	0		
119. Do you sometimes feel bad because your feet are too large or too small?	70	2	69	3		
120. Have you often felt that your ears are not nice looking?	67	5	71	1		
143. Do you sometimes feel bad because you oan't do what you want with your hands or feet?	45	27	63	9	10.700	.01
144. Do you often feel bad because you can't see well enough to read or do other things?	65	7	66	6		
167. Are you often troubled because of the size of your mouth?	67	5	69	3		
168. Are you troubled because your shoulders do not look as well as those of other people?	69	3	69	3		
169. Have you often felt bad because you have many freckles?	69	3	67	5		
193. Do you think your hair is too straight or too curly to look nice?	47	25	59	13	4.324	.05
195. Are you troubled because something is the matter with your arms or hands?	62	10	66	6		
Component score	1247	193	1306	134	11.601	.01

277

Items	Experimental		Control		X <sup>2</sup>	P
	R	W	R	W		
II. <u>Interpersonal Relationships</u>						
<u>Close Personal Relations</u>						
1. Do your folks usually let you have some of the friends you want?	64	8	70	2	4.454	.05
2. Do you sometimes have a good talk with your teachers?	54	18	41	31		
5. Do your friends seem to think that you are going to get along well?	64	8	66	6		
28. Does your family sometimes go to picnics or other places with you?	63	9	68	4		
29. Do you have some good friends of your own age?	67	5	66	6		
30. Do you have a very good friend who will talk with you about your troubles?	53	19	60	12		
53. Is someone at home usually nice to you when you are in trouble?	59	13	62	10		
76. Is there someone at home who will talk to you about your troubles?	67	5	67	5		
78. Do your folks let you choose your clothes or other things you need?	57	15	64	8		
79. Do the people at home often let you help decide what the family is going to do?	50	22	58	14		
103. Do you have some good friends among your cousins or other relatives?	63	9	65	7		

278

Items	Experimental		Control		$\chi^2$	P
	R	W	R	W		
104. Do people at home usually seem to believe the things you tell them?	62	10	62	10		
127. Do you feel that your folks like to have you bring friends home with you?	58	14	63	9		
128. Do you often have good times at home with your folks?	62	10	69	3		
151. Does someone at home help you get the money you need for things?	56	16	66	6	4.342	.05
153. Does one of your folks often take time to do things you like?	61	11	61	11		
154. Do you know someone who will keep your secrets?	56	16	66	6	4.346	.05
176. Do most of your friends have the traits or qualities you like?	64	8	52	20	5.362	.05
177. Do you have many good talks about things with your close friends?	61	11	66	6		
178. Are there some people not in your family who like to talk things over with you?	55	17	61	11		
Component Score	1196	244	1253	187	8.556	.01

Social Participation

12. Do you like to be with others rather than to be alone?	66	6	63	9		
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279

Items	Experimental		Control		$\chi^2$	P
	R	W	R	W		
13. Do people seem to think that you do your share of the work to be done?	60	12	62	10		
15. Do you usually try to work or play with your friends?	70	2	71	1		
36. Are you a member of a group which often does interesting things?	35	37	56	16	11.940	.01
38. Do you like to play games in the homes of your friends?	62	10	57	15		
39. Do you take part in plays or programs at school?	54	18	52	20		
64. Do you sometimes go camping or hiking with people of your own age?	45	27	48	24		
86. Are you a member of Cubs, Scouts, Bluebirds, Girl Scouts, or some other group?	14	58	32	40	9.230	.01
87. Do you like to be with friends as much as you can?	70	2	65	7		
89. Do you like to go to school parties or socials?	66	6	60	12		
111. Do you like to do things rather than read or think about them?	55	17	53	19		
114. When there is time do you usually play or visit with your classmates?	53	19	58	14		
115. Do you like to study with other boys and girls rather than alone?	49	23	55	17		
136. Do you do several things which are of interest to other boys or girls?	59	13	64	8		

Items	Experimental		Control		$\chi^2$	P
	R	W	R	W		
140. Do you sometimes go to programs or socials with other people?	55	17	61	11		
161. Do you sometimes help to plan or carry on a party?	53	19	65	7	5.680	.02
162. Are you a member of a boys' or girls' group which does interesting things?	26	46	45	27	9.000	.01
164. Do your friends seem to think that you are good at helping to get things done?	65	7	65	7		
165. Do you like to trade, buy, or sell things?	63	9	62	10		
190. Do you usually take part in the things that are usually going on at school?	65	7	58	14		
Component score	1085	355	1152	288	8.720	.01
Score for Interpersonal Relations	2281	599	2405	475	17.413	.01

### III. Abilities, Capacities, Skills

#### Interpersonal Skills

9. Do you know how to keep people from feeling bad when they make a mistake?	55	17	61	11		
10. Do you keep from showing that you are bothered when you lose at games?	49	23	50	22		
32. Do you usually try to find out what your friends like to do?	67	5	64	8		



Items	Experimental		Control		$\chi^2$	P
	R	W	R	W		
33. Do you usually tell people when they do something well?	62	10	68	4		
56. Have you found that it pays to tell people when they have good ideas?	66	6	69	3		
57. Do your friends seem to think that you are fair with them?	58	14	67	5		
60. Can you often stop a quarrel without hurting people's feelings?	51	21	54	18		
81. Do you usually go out of your way to help others?	65	7	54	18	4.840	.05
85. Is it easy for you to get your classmates to do what they should?	40	32	33	39		
106. Do you like to give your classmates credit for what they know?	66	6	67	5		
107. Have you found that it is best not to tell people what do do?	50	22	52	20		
132. Do you usually help other people have a good time at parties?	68	4	71	1		
133. Do you usually do what you say you will?	55	17	59	13		
134. Do you usually keep from talking much about the things you know?	35	37	33	39		
156. Do you find it better not to tell people about their faults?	49	23	50	22		
158. Is it easy for you to like to do things other people are doing?	61	11	60	12		
181. Do you find it easy to be nice to people even when they do not agree with you?	52	20	51	21		

Items	Experimental		Control		$\chi^2$	P
	R	W	R	W		
183. Do your friends seem to think that you help them as they help you?	59	13	65	7		
184. Are you able to tell interesting stories when you have a chance to do so?	45	27	61	11	8.042	.01
185. Do your friends seem to think that you stand by them as they think you should?	60	12	58	14		
Component Score	1113	327	1147	293	2.236	N.S.

#### IV. Meaningful Objects, Situations, and Events

##### Adequate Outlook and Goals

21. Do you believe that all people should be treated right?	68	4	67	5		
22. Do you believe that people who work for a living are as good as those who do not need to work?	59	13	50	22		
47. Do you often think about what you are going to be when you grow up?	65	7	64	8		
48. Do you believe that you should treat people the way you would like to be treated?	67	5	70	2		
71. Do you think that people who are either richer or poorer than you should be treated well?	61	11	63	9		
73. Do you believe that what people do is more important than who they are?	50	22	42	30		

Items	Experimental		Control		$\chi^2$	P
	R	W	R	W		
74. Do you think that it is as important to behave well as it is to know a great deal?	64	8	63	9		
75. Do you think that people should be as careful of other people's feelings as they are of their own?	66	6	68	4		
98. Do you believe that people of other races are entitled to their rights?	64	8	65	7		
121. Should people suffer when they do wrong?	25	47	32	40		
122. Do you believe that being happy depends on what you do than on what others do for you?	51	21	49	23		
125. Should everyone be as careful to do what he ought to as to ask for his rights?	60	12	62	10		
148. Do you believe that every person has a right to his own beliefs and ideas?	68	4	70	2		
149. Is it wrong to take things you need very much if you are sure you won't get caught?	44	28	43	29		
171. Should people who cannot take care of themselves have help?	69	3	68	4		
172. Do you believe that most people are honest?	66	6	66	6		
196. Do you believe that most people like to see others do well?	66	6	65	7		
199. Do you think that the world is getting better?	47	25	45	27		

284

Items	Experimental		Control		$\chi^2$	P
	R	W	R	W		
200. Do you believe that most people spend too little time playing?	29	43	26	41		
Component Score	1149	291	1129	311	.822	N.S.

#### Satisfying Work and Recreation

16. Are most of your school subjects interesting?	64	8	58	14		
20. Do you spend more time than you like to on your school work?	31	41	28	44		
42. Do you have some kind of work that you like very much?	59	13	63	9		
43. Do you feel that you are allowed to do most of the things that you enjoy?	62	10	65	7		
44. When you play do you play hard?	33	39	56	16	14.238	.01
66. Do you usually look forward with pleasure to the duties of each new day?	62	10	67	5		
67. Do you feel that teachers usually treat the pupils as fairly as they should?	56	16	49	23		
93. Do you think that you are doing well in school?	55	17	56	16		
94. Do you usually feel good after you have worked or played hard?	57	15	58	14		
95. Do you have interesting things to do when you get tired of work or study?	54	18	66	6	6.048	.02
117. Do you spend part of your time reading about pets or other animals?	26	46	30	42		

205

Items	Experimental		Control		$\chi^2$	P
	R	W	R	W		
118. Are there a number of things which you like to talk about with your friends?	68	4	67	5		
141. When you work, do you like to work hard?	59	13	57	15		
142. Do you like your work well enough so that you do it with care?	69	3	68	4		
145. Do you like to spend part of your time working or doing things outdoors?	68	4	70	2		
166. Do you have good times raising animals or playing with pets?	56	16	66	6	4.432	.05
170. Do you sometimes enjoy yourself by going fishing, swimming, or hiking?	67	5	70	2		
191. Do you enjoy collecting stamps, coins, or other things?	53	19	61	11		
192. Do you often have a good time playing a musical instrument?	41	31	40	32		
194. Do you like to spend part of your time making boats, airplanes, or other things?	45	27	57	15		
Component Score	1085	355	1152	288	8.720	.01
Score for Meaningful Objects, Situations, and Events	2234	646	2281	599	2.166	N.S.

286

Items	Experimental		Control		$\chi^2$	P
	R	W	R	W		
<u>V. Adjustment</u>						
<u>Freedom from Behavioral Immaturity</u>						
3. Are you usually able to get the best seat at a program or other meeting?	32	40	45	27	4.018	.05
4. Do you often start eating before the others do because they take so long to get to the table?	44	28	46	26		
26. Have you found that it pays to make a fuss when people try to stop you from doing the things you like?	51	21	46	26		
27. Do some boys or girls get into your way so much that you push them aside?	50	22	58	14		
51. Have you been able to get even with people you do not like by refusing to speak to them?	50	22	52	20		
52. Do you try to stay away from people who will not let you do the things you like?	40	32	36	36		
54. Have you found that someone else will usually take the biggest piece of cake if you don't beat him to it?	47	25	40	32		
55. Do other people's feelings often seem to be hurt by things you say?	52	20	57	15		
77. Have you found that you can get things more quickly by demanding what you want?	59	13	61	11		

287



Items	Experimental		Control		$\chi^2$	P
	R	W	R	W		
80. Have you found that it pays to tell others right out about things you don't like?	44	28	26	46	8.034	.01
101. Does it pain you more when you get hurt than it does most people?	50	22	55	17		
102. Do you find that it pays to get mad at people who say mean things about you?	49	23	52	20		
105. Are many people so unfair that they expect you to keep your feelings to yourself?	56	16	57	15		
126. No matter how hard it is do you usually get people to pay attention to you?	39	33	30	42		
129. Do many people pay so little attention to your needs that you have to quarrel with them?	62	10	65	7		
130. Do you have to make a fuss because you are expected to do so many things?	55	17	60	12		
152. Are many people so unfair that you have to treat them badly?	54	18	63	9		
155. Do you get along best if you pay little attention to other people's feelings?	48	24	46	26		
179. Have you found that if you want to be happy you cannot depend on others?	36	36	49	23	4.127	.05
180. Have you found that you can often get out of trouble by stretching the truth a little?	38	34	38	34		
Component Score	956	484	982	458	.984	N.S.

288

Items	Experimental		Control		X <sup>2</sup>	P
	R	W	R	W		
<u>Freedom from Emotional Instability</u>						
6. Do people seem to hurt your feelings more often than they do the feelings of others?	55	17	59	13		
7. Are things often so bad that you feel as though life is hardly worth living?	39	33	34	38		
31. Do you often feel as though something keeps you from doing things you like to do?	30	42	39	33		
34. Do you often become so lost in your thoughts that you fail to notice the people around you?	35	37	43	29		
35. Are you more contented when you are alone than when you are with other people?	57	15	56	18		
58. Do you worry because people do not like you as well as they should?	56	16	58	12		
59. Are you often troubled because your plans do not turn out well?	46	26	47	25		
82. Do you often feel unhappy without knowing why?	46	26	46	26		
83. Are you often so busy with your thoughts that you do not hear what other people say?	42	30	37	35		
84. Do you feel better when you let people know that you see their faults?	39	33	34	38		
108. Have people often said unfairly that you have many poor ideas?	55	17	56	16		

289

Items	Experimental		Control		$\chi^2$	P
	R	W	R	W		
109. Do you find it hard to rest and take things easier?	47	25	58	14	4.186	.05
110. Are you often worried about what is going to happen to you?	40	32	35	37		
131. Have you often felt that you have more bad luck than most people?	46	26	45	27		
135. Have you found that you sometimes like and sometimes dislike the same people?	17	55	19	53		
157. Do you often feel that there is no use to keep on trying to do all the things people want you to do?	45	27	50	22		
159. Have you found that there are very few people who are good friends for long?	31	41	39	33		
160. Have you found ways of getting out of most of the things you do not like to do?	41	31	33	39		
182. Does it usually take you a long time to forget about it when you are not treated right?	46	26	47	25		
Component Score	860	580	884	556	.766	N.S.

Freedom from Feelings of Inadequacy

11. Are people so unfair that you have to make many excuses?	51	21	61	11	3.932	.05
14. Have you found it hard to make friends with the people you like?	52	20	63	9	4.316	.05

290

Items	Experimental		Control		$\chi^2$	P
	R	W	R	W		
37. Do you usually have your best times with boys or girls who are younger than you?	51	21	50	22		
40. Have you found that most pupils seem to get along in school better than you do?	35	37	34	38		
61. Do you often feel that members of your family do not like you as well as you deserve?	59	13	58	14		
62. Do people often say that you have not done your work as well as you should?	40	32	39	33		
63. Do your classmates seem to think that their ideas are better than yours?	35	37	43	29		
65. Do most of the other pupils seem to think they are better looking than you?	37	35	40	32		
88. Do many people make the mistake of thinking they cannot depend on you?	46	26	60	12	6.040	.02
90. Do you need a great deal of help from your teacher in order to do your best work in school?	40	32	54	18	5.178	.03
112. Do you find that many people are hard to get along with?	33	39	46	26	4.026	.05
113. Do people often seem to think that you are not as bright as you really are?	46	26	56	16		
137. Have you often felt that you were left out of things you would like to do?	36	36	41	31		

291

Items	Experimental		Control		$\chi^2$	P
	R	W	R	W		
138. Have you found that most people usually think about themselves and forget others?	37	35	29	43		
139. Do you feel that most people manage to get more attention than they deserve?	30	42	31	41		
163. Have you often felt that you will need more courage than other people?	34	38	43	29		
165. Have you found that it pays to tell people about the many things you have done?	31	41	25	47		
187. Does it seem to you that most of your classmates are healthier than you are?	52	20	59	13		
188. Does it seem to you that most of your friends can do better things than you can?	31	41	50	22		
189. Have you found that it is usually someone else's fault when things go wrong?	51	21	55	17		
Component Score	827	613	937	503	17.384	.01

#### Freedom from Nervous Manifestations

23. Do you have a hard time going to sleep?	42	30	55	17	4.546	.05
25. Do you often bite your fingernails?	39	33	33	39		
46. Do you often have stomach aches?	44	28	56	16	3.960	.05

292

Items	Experimental		Control		$\chi^2$	P
	R	W	R	W		
49. Do you get dizzy rather often?	60	12	64	8		
50. Do you hum a great deal of the time?	57	17	48	24		
72. Do you often have headaches?	43	29	57	15	5.528	.02
96. Do you stutter some at times?	49	23	46	26		
97. Do you find that you must squint your eyes a great deal?	60	12	61	11		
99. Do you have the habit of tapping your fingers?	53	19	48	24		
100. Are you often bothered with eye strain?	59	13	64	8		
123. Do you sometimes walk or talk in your sleep?	54	18	56	16		
124. Are you often troubled with bad dreams?	50	22	58	14		
146. Do some of your muscles sometimes tremble?	46	26	47	25		
147. Do you seem to catch cold very easily?	48	24	50	22		
150. Do you find that you are seldom hungry?	33	39	41	31		
173. Do you often hear a buzzing in your ears?	48	24	57	15		
174. Do your legs often feel too tense?	64	8	65	7		
175. Do you often have pains in your head?	50	22	64	8	7.114	.01

293



Items	Experimental		Control		$\chi^2$	P
	R	W	R	W		
197. Are the muscles in your arms often tense or tight?	63	9	58	14		
198. Do you often have a stiff shoulder or back?	59	13	57	15		
Component Score	1021	419	1085	355	7.010	.01
Score for Adjustment	3664	2096	3888	1872	19.116	.01
72 pairs, 71 df.						

## APPENDIX F

RESULTS OF THE SELF AND SELF IDEAL SORTS OF  
PHYSICALLY HANDICAPPED AND NON-HANDICAPPED STUDENTS

Items	Sort	E			C			X <sup>2</sup>	P	
		M	?	N M	M	?	NM			
<u>Physical Factors</u>										
3. I am a fast runner.	S 1	11 33	24 24	31 9	26 41	15 21	25 4	7.382	.03	
20. I can jump well.	S 1	12 24	34 35	20 7	28 28	24 28	14 10	7.766	.03	
22. I have nice hair.	S 1	35 42	26 21	5 3	35 43	18 15	13 8			
27. I have lots of energy.	S 1	26 44	25 19	15 3	41 43	15 17	10 6	5.014	.09	
30. I am good looking.	S 1	29 41	24 18	13 7	20 37	20 23	26 6			
33. I dress so people will notice me.	S 1	19 12	19 24	28 30	19 17	20 25	27 24			
36. I wear bright colors.	S 1	25 19	33 40	8 7	22 12	25 37	19 17			
44. I am tall.	S 1	20 25	22 34	24 7	23 14	21 35	22 17	6.196	.05	
Total	S 1	177 240	207 215	144 73	211 235	158 201	156 92	10.538 2.400	.01 N.S.	
4. I am not neat.	S 1	6 8	18 12	42 46	11 24	19 10	36 32	10.200	.01	
9. My clothes are different.	S 1	10 17	28 16	28 33	10 12	12 12	44 42	8.748	.02	
25. I have poor health.	S 1	5 4	14 8	47 54	7 8	15 12	44 46			
26. I do not have a good figure.	S 1	14 9	23 23	29 34	14 24	27 14	25 28	8.074	.02	

Items	Sort	E			C			X <sup>2</sup>	P
		M	?	N M	M	?	N M		
32. I cannot throw a ball well.	S 1	14 6	32 30	20 30	12 15	34 31	20 20		
39. I am clumsy.	S	7	10	49	2	23	41	6.684	.04
40. I am weak.	S 1	8 1	21 16	37 49	2 2	20 17	44 47		
45. I do not like active games.	S 1	8 7	26 30	32 29	8 4	40 41	18 21	6.884	.04
Total	S 1	72 52	172 156	284 330	66 92	190 153	272 283	1.388 14.176	N.S. .01

Interpersonal Relations

7. I join in what the group is doing.	S 1	45 43	20 22	1 1	44 37	16 24	6 5		
15. Other people want me to tell them what to do.	S 1	15 28	31 23	20 15	21 21	19 18	26 27	8.746	.02
36. I like my parents.	S 1	46 52	18 14	2 0	52 36	11 27	3 3	7.398	.03
37. My parents let me decide.	S 1	35 44	21 18	10 4	22 31	24 26	20 9	6.496	.05
Total	S 1	141 167	90 77	33 20	139 125	70 95	65 44	2.758 15.152	N.S. .01
17. I am unpopular.	S 1	12 4	22 12	32 50	12 17	15 10	39 39	8.030	.02
29. I have brother, sister I don't like.	S 1	6 5	24 27	36 34	11 5	20 10	35 51	9.930	.01
42. My parents expect too much of me.	S 1	6 3	27 34	33 29	7 3	35 29	24 34		
Total	S 1	24 12	73 73	101 113	30 25	70 49	98 124	.508 9.322	N.S. .01

Items	Sort	E			C			x <sup>2</sup>	P	
		M	?	N M	M	?	N M			
<u>Capacities, Abilities, Skills</u>										
1. I look on the bright side of things.	S 1	47 54	16 9	3 3	45 53	10 11	11 2			
2. I understand the kind of person I am.	S 1	46 51	15 12	5 3	43 43	19 20	4 3			
5. I can take a joke on myself.	S 1	41 44	19 16	6 6	47 37	12 23	7 6			
8. I am a leader.	S 1	9 36	36 17	21 13	9 33	22 13	35 20	5.932	.05	
16. I draw pictures.	S 1	30 30	23 29	13 7	29 35	21 17	16 14			
19. I am good in my school work.	S 1	36 57	17 6	13 3	33 49	16 14	17 3			
35. I can take things apart and put them together again.	S 1	30 30	25 28	11 8	31 19	31 37	4 10			
47. I have confidence in my own abilities.	S 1	45 44	15 21	6 1	34 27	21 26	11 13	12.582	.01	
49. I take part in class discussions.	S 1	35 42	27 23	4 1	35 29	18 32	13 5			
Totals		S 1	319 388	193 161	82 45	306 325	170 193	118 76	7.686 15.542	.05 .01
6. I cannot talk well in front of a group.	S 1	10 7	25 28	31 31	24 31	16 19	26 16	7.330 19.440	.03 .01	
10. I do not like to make things.	S 1	9 5	23 28	34 33	14 17	25 27	27 22	7.420	.03	
Total		S 1	19 12	48 56	65 64	38 48	41 46	53 38	14.498 27.337	.01 .01

Items	Sort	E			C			X <sup>2</sup>	P
		M	?	N M	M	?	N M		
<u>Meaningful Objects, Situations, Events</u>									
11. I keep working until work is finished.	S 1	47 52	11 10	8 4	48 44	10 16	8 6		
18. I feel money is important.	S 1	38 35	17 19	11 12	32 29	12 16	22 21		
34. I like reading.	S 1	48 42	11 19	7 5	34 32	23 25	9 9	6.884	.04
43. I get places on time.	S 1	42 37	19 28	5 1	42 30	16 32	8 4		
48. I watch, listen to T.V., radio.	S 1	55 36	10 30	1 0	43 24	22 27	1 5	6.190 5.756	.04 .05
Total	S 1	230 202	68 106	32 22	199 159	83 126	48 45	6.542 13.644	.05 .01
12. I don't like arithmetic.	S 1	16 5	20 24	30 37	19 17	21 11	26 38	9.620	.01
13. I do not like animals.	S 1	8 7	23 15	35 44	11 21	20 9	35 36	7.690	.05
24. I do not like school.	S 1	15 10	13 20	38 36	19 20	16 12	30 34		
28. I am not a good sport.	S 1	9 5	14 12	33 49	11 17	27 21	28 28	6.466 12.640	.05 .01
Total	S 1	48 27	70 71	136 166	60 75	84 53	119 136	2.716 26.770	N.S. .01
<u>Adjustment</u>									
14. I get excited or upset easily.	S 1	14 6	25 18	27 42	14 3	23 9	29 54		
21. I can't seem to keep my mind on my work.	S 1	15 6	22 23	29 37	16 13	25 20	25 33		
3. I am shy.	S 1	17 5	22 19	27 42	21 6	22 16	23 44		
31. I am hurt by criticism.	S 1	14 6	23 12	29 48	7 4	30 15	29 47		

Items	Sort	E			C			X <sup>2</sup>	P
		M	?	NM	M	?	NM		
41. I cannot make up my mind.	S 1	13 5	25 22	28 39	9 6	36 33	21 27		
46. I am afraid to take chances.	S 1	10 1	24 26	32 39	4 5	37 29	25 32		
50. I am an unhappy person.	S 1	7 11	15 15	44 50	5 3	18 22	43 41		
Total	S 1	90 30	150 135	216 297	76 40	191 144	195 278	5.300 1.946	N.S. N.S.



# SELECTED BIBLIOGRAPHY

Abel, Georgie Lee, "The Education of Blind Children," in Education of Exceptional Children and Youth, ed. William M. Cruickshank and G. Orville Johnson. Englewood Cliffs, New Jersey: Prentice-Hall, Inc., 1958, 338 pp.

Abrams, Dorothy Frances, "Comparative Study of Dominant Personality Tendencies as Shown by California Test of Personality of Selected Cerebral Palsied and Selected Physically Normal Children," unpublished Doctor's Dissertation, New York University, 1956, in Dissertation Abstracts, 17, 546.

Allen, R. M., "Psychological Assessment Procedure for the Cerebral Palsied," Proceedings of Post Doctoral Workshop in Psychological Services for the Cerebral Palsied. Coral Gables, Florida: University of Miami Press, 1959. 34 pp.

Alpenfels, J. Ethel, "Children at Work -- An Anthropologist's Viewpoint," Childhood Education, 37:8 (April, 1961), 364-365.

\_\_\_\_\_, "Culture Shapes Self," Childhood Education, 33:7 (March, 1957), 294-296.

Anderson, Harold H., "Social Development," in Manual of Child Psychology, ed. Leonard Carmichael. New York: John Wiley and Sons, Inc., 1954. 1171 pp.

Avery, Charlotte B., "The Education of Children with Impaired Hearing," in Education of Exceptional Children and Youth, ed. William M. Cruickshank and G. Orville Johnson. Englewood Cliffs, New Jersey: Prentice-Hall, Inc., 1958. 723 pp.

Axline, Virginia M., "Meeting the Crisis," Educational Leadership, 14:6 (March, 1957), 330-333.

Barker, Roger G., Beatrice A. Wright, Lee Meyerson, and Mollie R. Gonich, Adjustment to Physical Handicap and Illness: A Survey of the Social Psychology of Physique and Disability. New York: Social Science Research Council, 1953, 440 pp.

Barker, Roger G., "The Social Psychology of Physical Disability," Journal of Social Issues, 4:4 (Fall, 1948), 28-38.

Bauer, I. L., "Attitudes of Children with Rheumatic Fever," Journal of Pediatrics, 40 (Jan. - June, 1952), 801-807.

Beck, Robert, Walter Cook, and Nolan Kearney, Curriculum in the Modern Elementary School. Englewood Cliffs, New Jersey: Prentice Hall, Inc., 1960, 513 pp.

Berbeck, Evans Herbert, "Parental Attitudes in Families where Cerebral Palsy is Present," unpublished Doctor's Dissertation, State University of Iowa, 1960 in Dissertation Abstracts, 20, 1840.

Bernard, Harold W., Psychology of Learning and Teaching. New York: McGraw-Hill Company, 1954, 404 pp.

Bertram, Fredericka, "The Education of Partially Sighted Children," in Education of Exceptional Children and Youth, ed. William W. Cruickshank and G. Orville Johnson. Englewood Cliffs, New Jersey: Prentice-Hall Inc., 1958. 294 pp.

Bice, Harry "Some Factors that Contribute to the Concept of Self in the Child with Cerebral Palsy," Mental Hygiene, 38:1, (Jan. 1954), 120-131.

Bills, Robert E., "Believing and Behaving: Perception and Learning," Learning More about Learning, ed. Alexander Frazier, Washington, D.C.: Association for Supervision and Curriculum Development, 1959, 73 pp.

\_\_\_\_\_, "About People and Teaching," Bulletin of Bureau of School Service, University of Kentucky, 28:2 (Dec., 1955), 1-77.

Board of Education of New York City, "Helping the Physically Limited Child," Curriculum Bulletin, 7, (1952-1953), 1-35.

Bodwin, Raymond Franklin, "The Relationship Between the Immature Self Concept and Certain Educational Disabilities," unpublished Doctor's Dissertation, Michigan State University, 1957, in Dissertation Abstracts, 19, 1645-1646.

Boles, Glenn, "Personality Factors in Mothers of Cerebral Palsied Children," unpublished Doctor's Dissertation, Colorado University, 1957, in Dissertation Abstracts, 17, 893.

Bone, Harry, "Personality Theory," in American Handbook of Psychiatry, ed. Silvano Arieti, New York: Basic Books, Inc., Publishers, 1959. 2098 pp.

Brandt, Richard M. "The Accuracy of Self Estimate: A Measure of Self-Concept Reality," Genetic Psychology Monograph, 58 (1958). 55-99

Brazelton, T. Berry, Richmond Holder, and Beatrice Talbot, "Emotional Aspects of Rheumatic Fever in Children," Journal of Pediatrics, 43:4 (July-Dec., 1953), 354.

Breckenridge, Marian E. and E. Lee Vincent, Child Development, Philadelphia: W. B. Saunders and Company, 1950. 622 pp.

\_\_\_\_\_, Child Development, Philadelphia: W. B. Saunders and Company, 1960. 634 pp.

Breithaupt, Jack F., "Effects of Intelligence and Orthopedic Handicap Upon Selected Personality Variables," unpublished Doctor's Dissertation, Indiana University, 1960 in Dissertation Abstracts 21, 545.

- Brill, Richard G., "A Study in Adjustment — Three Groups of Deaf Children," Exceptional Children, 26:9 (May, 1960), 464-466, 474.
- Broida, D. C., C. E. Izard, and William M. Cruickshank, "Thematic Apperception Reactions of Crippled Children," Journal of Clinical Psychology, 6:3 (July, 1950), 243-248.
- Broudy, Harry S., Building a Philosophy of Education. New York: Prentice-Hall, Inc., 1954. 362 pp.
- Bruck, Max, "A Study of Age Differences and Sex Differences in the Relationship Between Self Concept and Grade Point Average," unpublished Doctor's Dissertation, Michigan State University in Dissertation Abstracts 19, 1646.
- Buell, Charles E., Motor Performance of Visually Handicapped Children. Arbor, Michigan: Edward Brothers Inc., 1950. 123 pp.
- Butsch, R. L. C., How to Read Statistics. Milwaukee, Wisconsin: Bruce Publishing Company, 1946. 101 pp.
- Cannon, Walter B., Wisdom of the Body, New York: W. W. Norton and Company, Inc., 1939. 333 pp.
- Cantor, Nathaniel, "Function and Focus in the Learning Process," in Readings for Educational Psychology, ed. William A. Fullagar, Hal G. Lewis, and Carroll F. Cumbee. New York: Thomas Y. Crowell Company 1956, 500 pp.
- Cantrill, H., "The Nature of Social Perception," Transaction of New York Academy of Science, 10, (1948), 1-153.
- Cardwell, Viola, Cerebral Palsy, Advances in Understanding and Care. New York: Association for the Aid of Crippled Children, 1956. 373 pp.
- Carlson, Betty Rae, "Parent Child Relations and the Self Concept of Children," unpublished Doctor's Dissertation, University of Michigan, 1958, in Dissertation Abstracts, 19, 1436.
- Carter, V. E. and S. Chess, "Factors Influencing the Adaptation of Organically Handicapped Children," American Journal of Orthopsychiatry, 21, (1951), 826-829.
- Chickering, Arthur W., "Self Concept and Ideal Self Concept and Achievement," unpublished Doctor's Dissertation, Colorado University, 1958, in Dissertation Abstracts, 19, 164.
- Cole, Lawrence E. and William F. Bruce, Educational Psychology, New York: World Book Company, 1950. 387 pp.
- Combs, Arthur W. and Donald Snygg, Individual Behavior. New York: Harper and Brothers, 1959. 522 pp.
- Committee for the Study of the Care and Education of Physically Handicapped Children in the Public Schools of the City of New York, Report of

- Children with Physical Handicap, Report No. 3, Cardiac Classes and the Care of the Cardiac, 1955. 48 pp.
- Connor, Frances P., "The Education of Crippled Children," in Education of Exceptional Children and Youth, ed. William M. Cruickshank and G. Orville Johnson. Englewood Cliffs, New Jersey: Prentice-Hall, 1958. 497 pp.
- Corey, Stephen, A. W. Foshay, and Gordon Mackenzie, "Instructional Leadership and the Perceptions of the Individuals Involved," Bulletin of National Association of Secondary School Principals, 35 (Nov. 1951), 81-89.
- Coutu, Walter, Emergent Human Nature, a Symbolic Field Interpretation. New York: Alfred A. Knopf, 1949. 485 pp.
- Crow, Lester D. and Alice Crow, Child Psychology. New York: Barnes and Noble, Inc., 1953. 267 pp.
- Cruickshank, William M. and Harry V. Bice, "Personality Characteristics," in Cerebral Palsy, Its Individual and Community Problems, ed. William M. Cruickshank and George M. Raus. Syracuse: Syracuse University Press, 1955, 560 pp.
- \_\_\_\_\_, "Psychological Considerations with Crippled Children," in Psychology of Exceptional Children and Youth, ed. William M. Cruickshank, Englewood Cliffs, New Jersey: Prentice-Hall, Inc., 1955. 344 pp.
- \_\_\_\_\_, "The Impact of Physical Disability on Social Adjustment," Journal of Social Issues, 4:4 (Fall, 1948), 78-83.
- Dashiell, John F., Fundamentals of General Psychology. New York: Houghton, Mifflin Company, 1949. 502 pp.
- Davis, Allison W., "How Your Child Gets His Personality," Hygeia, 26:4 (April, 1948), 260-261, 289-290.
- Denhoff, Eric, "The Impact of Parents on the Growth of Exceptional Children," Exceptional Children, 26:5 (January, 1960), 5, 271-274.
- Dennison, Amie L., Partially Seeing Children Aren't So Different. New York: National Society for the Prevention of Blindness Inc., 1952. 108 pp.
- Di Carlo, Louis M. and Walter W. Amster, "Hearing and Speech Behavior Among Cerebral Palsied Children," in Cerebral Palsy, ed. William M. Cruickshank and George M. Raus. Syracuse, New York: Syracuse University Press, 1955. 560 pp.
- Dildine, Glenn C. "Motivated to Learn," in Readings for Educational Psychology, ed. William A. Fullagar, Hal G. Lewis, and Carroll F. Cumbee. New York: Thomas Y. Crowell Company, 1956. 500 pp.
- Elser, Roger R., "The Social Position of Hearing Handicapped Children in



- the Regular Grades," Exceptional Children, 25:7 (March, 1959), 305, 309.
- Engbretson, William E., "Values of Children and How They are Developed," Childhood Education, 35:6 (Feb., 1959), 259, 264.
- Fitzgerald, D. C., "Success-Failure and T.A.T. Reaction of Orthopedically Handicapped and Physically Normal Adolescents," Personality, 1 (Mar., 1951), 67-83.
- Force, Dewey G., "Social Status of Physically Handicapped Children," Exceptional Children, 23:3 (Dec., 1956), 104-107, 132.
- Foshay, Arthur W. and Kenneth D. Wann, Children's Social Values. New York: Teachers College, Columbia University, 1952. 323 pp.
- Fostering Mental Health in our Schools. 1950 Yearbook, Association for Supervision and Curriculum Development, National Education Association, Washington, D. C.: 320 pp.
- Freeman, G. L., The Energetics of Human Behavior. Ithica, New York: Cornell University Press, 1948. 529 pp.
- Frisina, D. Robert, "Some Problems Confronting Children with Deafness," Exceptional Children, 26:2 (Oct., 1959), 94-97.
- Fromm, Erich, "Selfishness, Self-love, and Self-Interest." in The Self, ed. Clark E. Moustakes. New York: Harper Brothers, Publishers, 1956. 395 pp.
- Garrett, Henry E., Statistics in Psychology and Education. New York: Longmans, Green and Company, 1954. 458 pp.
- Gates, Mary F., "A Comparative Study of Some Problems of Social and Emotional Adjustment of Crippled and Non-Crippled Girls and Boys," Journal of Genetic Psychology, 68:2 (June, 1946), 219-244.
- Gesell, Arnold, The Psychological Development of Normal and Deaf Children in Their Preschool Years. Washington, D.C.: Volta Bureau, 1958. 12 pp.
- Goldstein, Kurt, "The Organismic Approach," in American Handbook of Psychiatry, ed. Silvano Arieti. New York: Basic Books, Inc. Publishers, 1959. 2098 pp.
- Gordon, Ira J. The Teacher as a Guidance Worker. New York: Harper Brothers, 1956. 350 pp.
- Gre, Beatrice S. and Jane Stoddard, Teaching the Cerebral Palsied Child. Sacramento, California: California State Department of Education, 1954. 83 pp.
- Greenbaum, M., T. Qualtere, B. Barruth and William M. Cruickshank, "Evaluation of a Modification of the Thematic Apperception Test for

- Use with Physically Handicapped Children," Journal of Clinical Psychology, 9, (1953), 40-44.
- Growing Up in an Anxious Age. 1952 Yearbook, Association for Supervision and Curriculum Development, Washington, D. C.: National Education Association, 1952. 263 pp.
- Graham, Ray, Upgrading Educational Facilities for Children Who are Partially Seeing. New York: National Society for the Prevention of Blindness, Inc., 1956, 8 pp.
- Hall, Calvin S. and Gardner Lindzey, Theories of Personality. New York: John Wiley and Sons, 1957. 483 pp.
- Hanlon, T. E., P. R. Hofstaetter, and J. P. O'Connor, "Congruence of Self and Ideal in Relation to Personality Adjustment," Journal of Consulting Psychology, 18 (June, 1954), 215-218.
- Hardy, William G., Problems of Audition, Perception, and Understanding. Washington, D. C.: Volta Bureau, 1956. 13 pp.
- Hardy, William G. and John E. Bordley, "The Child with Impaired Hearing," in Management of the Handicapped Child, ed. H. Michael and R. Smith. New York: Grune and Straton, Inc., 1957. 374 pp.
- Harway, V. T., "Self Evaluation and Reactions to Success and Failure Experiences in Orthopedically Handicapped Children." unpublished Doctor's Dissertation, University of Rochester, 1952 in Dissertation Abstracts, 17, 1402-1404.
- Havighurst, Robert J., Developmental Tasks and Education. Chicago: University of Chicago Press, 1948. 119 pp.
- \_\_\_\_\_, "Today's Children in Tomorrow's World," Childhood Education, 37:8 (April, 1961), 356-360.
- Hawk, Leon Travis, "Concept of Self as a Variable in Adolescent Behavior," unpublished Doctor's Dissertation, University of Texas, 1958, in Dissertation Abstracts, 19, 1014 pp.
- Holden, Raymond H., "Motivation Adjustment and Anxiety of Cerebral Palsy Children," Exceptional Children, 24:7 (March, 1958), 313-316.
- Hopkins, L. Thomas, The Emerging Self in School and Home. New York: Harper and Brothers, 1954. 366 pp.
- Ittelson, William E. and Hadley Cantril, Perception -- A Transactional Approach. Garden City, New York: Doubleday and Company, Inc., 1954. 51 pp.
- Johnson, G. Orville, "Guidance for Exceptional Children," in Education of Exceptional Children and Youth, ed. William M. Cruickshank and G. Orville Johnson. Englewood Cliffs, New Jersey: Prentice-Hall Inc., 1958. 649 pp.



- Kammerer, R. C., "An Exploratory Psychological Study of Crippled Children," Psychological Record, 4:3 (Oct., 1940), 47-100.
- Katz, Irving Stanley, "A Study of the Stability of the Self Concept and Its Relationship to Sociometric Status and Sociometric Perception." Doctoral Dissertation, Michigan State University, 1956, in Doctoral Abstracts, 19, 878.
- Kelley, Earl C., Education for What is Real. New York: Harper and Brothers, 1947. 354 pp.
- Kemmore, Jeanne R., "The Developmental Needs of Blind Children," Exceptional Children, 27:4 (Dec., 1960), 212-215.
- Kephart, Newell C., The Slow Learner in the Classroom. Columbus, Ohio: Charles E. Merrill Books Inc., 1960. 292 pp.
- Kerby, E. Edith, A Report on Visual Handicaps. New York: National Society for the Prevention of Blindness, 1952. 8 pp.
- Kimmel, James, "A Comparison of Children with Congenital and Acquired Orthopedic Handicaps on Certain Personality Characteristics," unpublished Doctor's Dissertation, New York University, 1958, in Dissertation Abstracts, 21, 545.
- Klapper, Z. S. and H. Werner, "Developmental Deviations in Brain-Injured (Cerebral Palsied) Members of Pairs of Identical Twins," Quarterly Journal of Child Behavior, 2:3 (March, 1950), 288-313.
- Kolb, Lawrence C., "Disturbances of the Body Image," in American Handbook of Psychiatry, ed. Silvano Arieti. New York: Basic Books Inc. Publishers, 1959. 2098 pp.
- Kowitz, Gerald and Norma G. Kowitz, Guidance in the Elementary Classroom. New York: Mc Graw-Hill Book Company, 1959. 314 pp.
- Kahn, Harris, "Responses of Hard of Hearing and Normal Hearing Children to Frustration," Exceptional Children, 24:4 (Dec., 1957), 155-159.
- Krider, May Althea, "A Comparative Study of the Self Concept of Crippled and Non-Crippled Children." unpublished Doctor's Dissertation, Wayne State University, 1959, in Dissertation Abstracts, 20, 729.
- Lange, Patricia, "Frustration Reactions of Physically Handicapped Children," Exceptional Children, 25: 8 (April, 1959), 355-357.
- Larson, Leroy, "Preschool Experiences of Physically Handicapped Children," Exceptional Children, 24:7 (March, 1958), 310-312.
- Lecky, Prescott, "The Personality," in The Self, ed. Clark E. Moustakes. New York: Harper Brother, Publishers, 1952. 284 pp.
- Lillywhite, Herold, "A Point of View for Those Working with the Handicapped," Journal of Exceptional Children, 25:3 (Nov., 1958), 101-105.

- Livson, Norman H. and Thomas F. Nichols, "Discrimination and Reliability in Q-sort Personality Description," Journal of Abnormal and Social Psychology, 52:2 (March, 1956), 159-165.
- Lowenfeld, Berthold, "The Blind Adolescent in a Seeing World," Exceptional Children, 25:7 (March, 1959), 257.
- \_\_\_\_\_, "Problems of Children with Impaired Vision." in Psychology of Exceptional Children and Youth, ed. William M. Cruickshank, Englewood Cliffs, New Jersey: Prentice-Hall, Inc., 1955. 594 pp.
- Mc Andrew, H., "Rigidity in the Deaf and the Blind," Journal of Social Issues, 4:4 (Fall, 1948), 72-77.
- Mc Ginnis, E., "Emotional and Perceptual Defense," in Outside Readings in Psychology, ed. Eugene L. Hartley, Herbert G. Birch, and Ruth E. Hartley, New York: Thomas Y. Crowell Company, 1955. 465 pp.
- Machover, K., Personality Projection in the Drawing of the Human Figure. Springfield, Illinois: Charles G. Thomas, 1949. 367 pp.
- Maslow, A. N., Motivation and Personality. New York: Harper Brothers, 1954. 392 pp.
- May, Rollo, "The Existential Approach," in American Handbook of Psychiatry, ed. Silvano Arieti. New York: Basic Books, Inc., Publishers, 1959. 2098 pp.
- Mead, G. H., Mind, Self and Society. Chicago: University of Chicago Press, 1934. 401 pp.
- Mehl, Marie C., "Philosophical Implications of the Evaluation of Cerebral Palsied," Cerebral Palsy Review, 21:2 (March-April, 1960), 6-9.
- Meyerson, Lee, "A Psychology of Impaired Hearing," in Psychology of Exceptional Children and Youth, ed. William M. Cruickshank, Englewood Cliffs, New Jersey: Prentice-Hall, Inc., 1955. 492 pp.
- \_\_\_\_\_, "Experimental Injury: An Approach to the Dynamics of Personality," Journal of Social Issues, 4:4 (Fall, 1948), 68-71.
- \_\_\_\_\_, "Physical Disability as a Social-Psychological Problem," Journal of Social Issues, 4:4 (Fall, 1948), 2-10.
- \_\_\_\_\_, "Somatopsychology of Physical Disability," in Psychology of Exceptional Children and Youth, ed. William M. Cruickshank, Englewood Cliffs, New Jersey: Prentice-Hall, Inc., 1955. 492 pp.
- Michael, H. and R. Smith, Critical Analysis of Psychological Tests in Use with the Cerebral Palsied. New York: United Cerebral Palsied Association of New York State, 1956. 35 pp.
- Miller, Elsa A., "Cerebral Palsied Children and Their Parents," Exceptional Children, 24:7 (March, 1958), 298, 302, 305.

- Morgan, Gerthron, "With Focus on Self — The Teacher," Baltimore Bulletin of Education, 37:3 (April, 1960), 9-16.
- Murphy, Gardner, Personality: A Biosocial Approach to Origin and Structure. New York: Harper Brothers, 1947. 999 pp.
- Mussen, P. H. and D. K. Newman, "Acceptance of Handicap, Motivation and Adjustment in Physically Disabled Children," Exceptional Children, 24:6 (Feb., 1958), 255-260.
- Mussen, Paul H., and Mary C. Jones, "Self-Conceptions, Motivations, and Interpersonal Attitudes of Late and Early Maturing Boys," Child Development, 28:2 (June, 1957), 243-256.
- Myklebust, Helmer R., The Psychology of Deafness — Sensory Deprivation, Learning and Adjustment. New York: Grune and Stratton, 1960. 393 pp.
- Nakamura, Talko, "Obstacle-Perception of the Blind," Psychological Abstracts, 34:1 (Feb., 1960), No. 1933.
- Newland, T. Ernest, "Exceptional Children: Psychological Assessment," Exceptional Children and Youth, ed. William M. Cruickshank, Englewood Cliffs, New Jersey: Prentice-Hall, Inc., 1955. 594 pp.
- Newman, Joseph, "Psychological Problems of Children and Youth with Chronic Medical Disorders," in Psychology of Exceptional Children and Youth, ed. William M. Cruickshank. Englewood Cliffs, New Jersey: Prentice-Hall, Inc., 1955. 594 pp.
- Norberg, Kenneth, "Perception Research and Audio-Visual Education," in Readings for Educational Psychology, ed. William A. Fullgar, Hal G. Lewis, and Carroll F. Cumbee. New York: Thomas Y. Crowell Company, 1956. 500 pp.
- Olson, Willard C. and Bryon O. Hughes, "Concepts of Growth — Their Significance to Teachers," in Readings for Educational Psychology, ed. William A. Fullgar, Hal G. Lewis and Carroll F. Cumbee. New York: Thomas Y. Crowell Company, 1956. 500 pp.
- Rassou, A. Harry, "Individualization of Instruction." (Mimeographed, undated.)
- Ratty, William and Louise Johnson, Personality and Adjustment, New York: Mc Graw-Hill Company, 1953. 386 pp.
- Perkins, Hugh V., "A Study of Selected Factors Influencing Perceptions of and Changes in Children's Self-Concepts," unpublished Doctor's Dissertation, New York University, 1956. 279 pp.
- \_\_\_\_\_, "Changing Perceptions of Self," Childhood Education, 34:2 (Oct., 1957), 82-84.
- Philipps, E. L., Isabel R. Berman, and H. E. Hanson, "Intelligence and Personality Factors Associated with Poliomyelitis Among School-Age

- Children," Child Development Monographs, 12:2 (1947), 431-437.
- Pintner, R. and G. Forlano, "Personality Tests of Partially Sighted Children," Journal of Applied Psychology, 27:6 (June, 1943), 283-287.
- Plant, James S., Personality and the Cultural Pattern. New York: The Commonwealth Fund, 1937. 414 pp.
- Portnoy, Isidore, "The Anxiety States," in American Handbook of Psychiatry, ed. Silvano Arieti. New York: Basic Books, Inc., 1959. 2098 pp.
- Powers, Ann W., "Mother-Child Relationships in the Rehabilitation of the Physically Disabled," Social Casework, 32:6 (June, 1951), 262 pp.
- Prescott, Daniel, The Child in the Educative Process. New York: McGraw-Hill Company, 1957. 502 pp.
- Rasey, Marie I., "Toward the End," in The Self, ed. Clark E. Moustakas. New York: Harper and Brothers, Publishers, 1956. 284 pp.
- Redl, Fritz and William W. Wattenberg, Mental Hygiene in Teaching. New York: Harcourt, Brace and Company, 1951. 402 pp.
- Reiser, Morton F. and Hyman Bakst, "Psychology of Cardiovascular Disorders," in American Handbook of Psychiatry, ed. Silvano Arieti. New York: Basic Books, Inc., Publishers 1959. 2098 pp.
- Ribble, Margaret, The Rights of Infants. New York: Columbia University Press, 1943. 110 pp.
- Roff, Catherine, "The Self-Concept of Adolescent Girls," unpublished Doctor's Dissertation, Boston University Graduate School, 1959, in Dissertation Abstracts, 20, 386.
- Rogers, Carl R., Client-Centered Therapy. New York: Houghton Mifflin Company, 1951. 560 pp.
- \_\_\_\_\_, "Significant Learning in Therapy and Education," Educational Leadership, 16:4 (Jan., 1959), 232-242.
- \_\_\_\_\_, "Some Observations on the Organization of Personality," in Readings for Educational Psychology, ed. William A. Fullgar, Hal G. Lewis, Carroll F. Cumbee. New York: Thomas Y. Crowell Company, 1956. 500 pp.
- \_\_\_\_\_, "What It Means to Become a Person," in The Self, ed. Clark E. Moustakas. New York: Harper and Brothers, Publishers, 1956. 284 pp.
- Rome, Howard P. and David B. Robinson, "Psychiatric Conditions Associated with Metabolic, Endocrine, and Nutritional Disorders," in American Handbook of Psychiatry, ed. Silvano Arieti. New York: Basic Books, Inc. Publishers, 1959. 2098 pp.



Rosenstein, Joseph, "Perception, Cognition, and Language in Deaf Children — A Critical Analysis and Review of the Literature," Exceptional Children, 27:5 (Jan., 1961), 276-285.

\_\_\_\_\_, "Cognitive Abilities of Deaf Children," Journal of Speech and Hearing Research, (March, 1960), 108-119.

Roths, Louis A. and Stephen Abrahamson, Student Status and Social Class. Bronxville, New York: Modern Education Service, 1951. 16 pp.

Rummel, J. Francis, An Introduction of Research Procedures. New York: Harper Brothers, 1958. 402 pp.

Saul, Leon J., Bases of Human Behavior, a Biologic Approach to Psychiatry. Philadelphia: J. P. Lippincott Company, 1951. 602 pp.

Scheinfeld, Amram, The New You and Heredity. New York: J. B. Lippincott Company, 1950. 562 pp.

Sears, Pauline, "Aspiration and Academic Success," Journal of Abnormal and Social Psychology, 35:10 (Oct., 1940), 498-536.

Silver, Albert Wolfe, "The Self Concept: Its Relation to Parental and Peer Acceptance," unpublished Doctor's Dissertation, Michigan State University, 1958, in Dissertation Abstracts, 19, 166-167 pp.

Silverstein, A. B. and N. A. Robinson, "The Representation of Orthopedic Disability in Children's Figure Drawings." (Typescript, Baltimore, Maryland: Psychiatric Institute, University of Maryland Medical School, 1955), 19 pp.

Smock, C. and William M. Cruickshank, "Responses of Handicapped and Normal Children to the Rosenzweig P-F Study," Quarterly Journal of Children's Behavior, 4:2 (Feb., 1952), 156-64.

Solley, Charles M. and Gardner Murphy, Development of the Perceptual World. New York: Basic Books, Inc., 1960. 353 pp.

Spiegel, John P. and Norman W. Bell, "The Family of the Psychiatric Patient." in American Handbook of Psychiatry, ed. Wilvano Arieti. New York: Basic Books, Inc., Publishers 1959. 2098 pp.

Taba, Hilda, "New Tools for New Needs," Educational Leadership, 10:7 (April, 1953), 46-49.

Taylor, Charles and A. W. Combs, "Self-Acceptance and Adjustment," Journal of Consulting Psychology, 19 (June, 1955), 205-209.

Tervoort, Bernard, "Acoustic and Visual Language Communicating Systems," Volta Review, 60:7 (Sept., 1958), 374-380.

Thompson, Helen, "Physical Growth," in Manual of Child Psychology, ed. Leonard Carmichael. New York: John Wiley and Sons, Inc., 1954. 799 pp.

Toward Better Teaching, 1949 Yearbook, Association for Supervision and Curriculum Development of the National Education Association, Washington, D. C., 282 pp.

Tryon, Carolyn M., "Evaluations of Adolescent Personality by Adolescents." in Child Behavior and Development, ed. R. Barker, J. Kounin and H. Wright. New York: Mc Graw-Hill Book Company, 1954. 566 pp.

Tudyman, A., Progress in Education of the Partially Seeing in Oakland. New York: National Society for the Prevention of Blindness, Publication 243, 1959. 17 pp.

Vernon, J., E. Mc Gill, and H. Schuffman, "Visual Hallucinations During Perceptual Isolation," Canadian Journal of Psychology, 12 (1958), 31-34.

Waetjen, Walter B., "Developmental Tasks," (Typescript, College Park, Maryland: The University of Maryland, 1952.) 4 pp.

\_\_\_\_\_, "Facts About Learning," Baltimore Bulletin of Education, 38:2 Dec., 1960) 22-28.

\_\_\_\_\_, Human Variability and Learning. Association for Supervision and Curriculum Development, Washington, D.C. 88 pp.

\_\_\_\_\_, "Psychological Theories," (Typescript, not dated).

Walker, Helen M. and Joseph Lev, Elementary Statistical Methods. New York: Henry Holt and Company, 1958. 302 pp.

Warner, Lloyd, Maxwell Meeker, and Kenneth Eels, Social Class in America. Chicago: Science Research Association, 1949. 402 pp.

Wenar, Charles, "The Degree of Psychological Disturbance in Handicapped Youth," Exceptional Children, 24:1 (Sept., 1958), 7-10, 15.

\_\_\_\_\_, "The Effect of Motor Handicap on Personality: The Effects for Level of Aspiration," Child Development, 24, (June, 1953), 123-130.

Witenberg, Earl G., Janet Mac Kenzie, and Milton Mazer Rioch, "The Interpersonal and Cultural Approaches," in American Handbook of Psychiatry, ed. Silvan Arieti. New York: Basic Books, Inc., Publishers, 1959. 2098 pp.

Wrightstone, J. Wayne, Joseph Justman, and Sue Moskowitz, The Child with Orthopedic Limitations. New York City Board of Education, Bureau of Educational Research, 1954. 132 pp.

Young, Kimball, Personality and Problems of Adjustment. New York: F. S. Crofts and Company, 1947. 867 pp.



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